

Gremlin Graphics

buy these games at your peril!

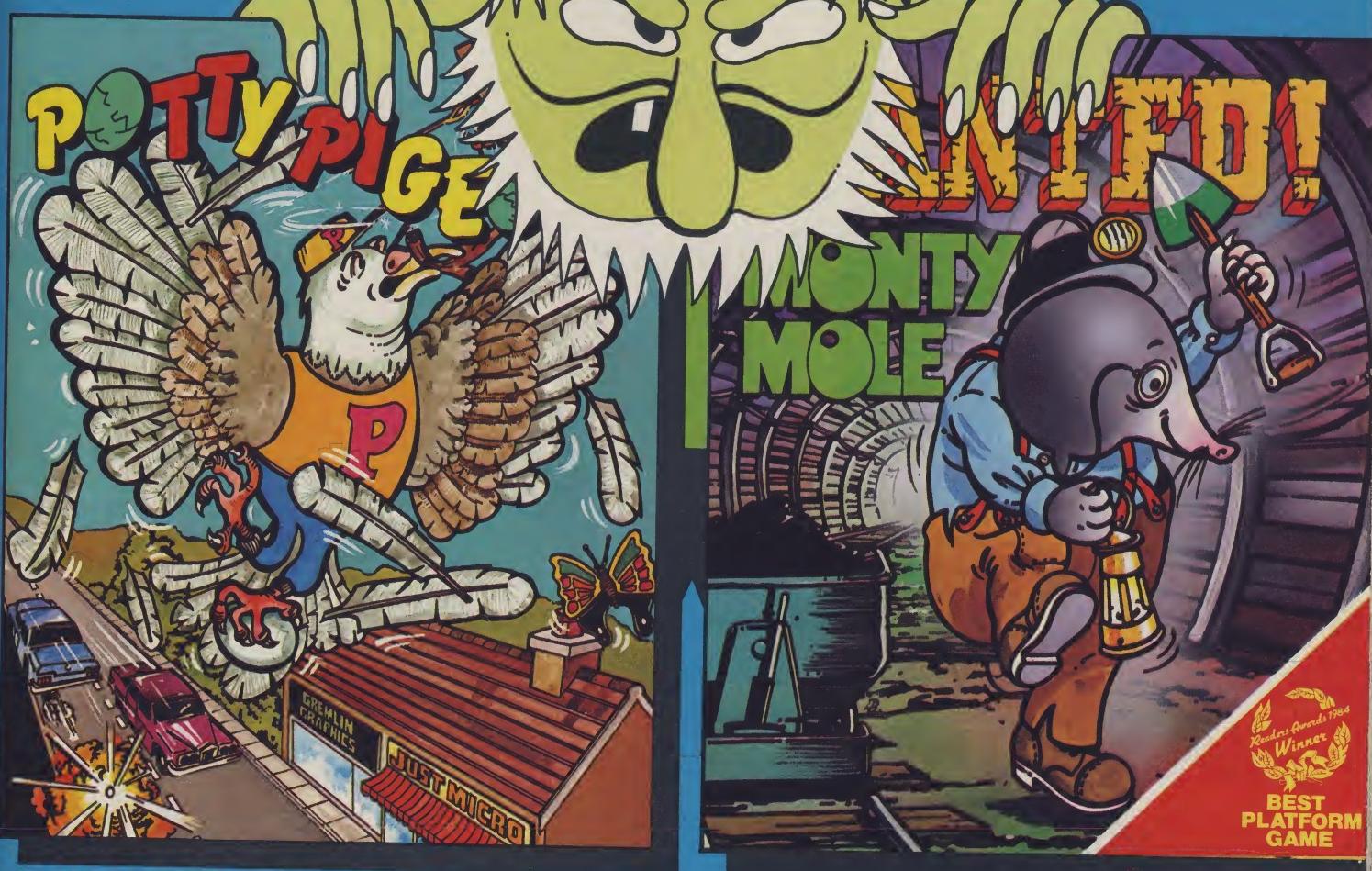
Two new games to drive you as potty as Percy, as mad as Monty packing in as much excitement and nerve racking tension as anything you can buy. The first launch from a new company whose design team have themselves to be masters of games planning, graphic and sound effects.

Tony Crowther

One of today's brightest and most successful game developers, author of such outstanding hits as Loco, Blagger and Son of Blagger. A "Crowther Classic" is not just a game but an enthralling opportunity to challenge one of the liveliest minds in modern games computing circles.

Peter Harrap

A sparkling new approach from a fresh face to Spectrum programming. His Monty Mole has created outstanding interest and received fine reviews from games "buffs", national press, radio and television.



Percy the Potty Pigeon – Make a suicide journey with our fluffy little friend Percy in his desperate attempts to build himself a cosy little home. Plunging to near certain destruction this crazy little bird has to pluck ten nest building twigs from the path of onrushing traffic, frantically avoiding the unwelcome attentions of a pigeon eating cat and starving ferret. Once off the tarmac the danger doesn't end as Percy carefully avoids the kamikaze planes, balloons and twig snatching sparrows before he can complete his nest and move to next level. But don't be totally disheartened our loveable little character has a few surprises of his own in the shape of revolting explosive eggs.

COMING SOON!
Potty Pigeon
on Spectrum 48K



Potty Pigeon Commodore 64 £7.95



Monty Mole Spectrum 48K £6.95



Monty Mole Commodore 64 £7.95

Wanted Monty Mole – Facing a long cold winter Monty Mole makes a daring, coal snatching raid to his local South Yorkshire pit. Grabbing a miner's bucket he heads into the darkness of his illicit escapade, soon to realise that the flu may have been a better choice. Alas there's no turning back. Onward to do battle with flying pickets, mammal eating fish, trundling coal crushers, roaming coal drills, filling his bucket dodging the disappearing floor. With his bucket filled, Monty makes his escape only to surface in Arthur's castle with this most imposing of leaders barring his way seated on his graphite throne. Cleverly seizing his only chance of toppling the great man, Monty collects the secret ballot papers and vote casting scroll. But Arthur's no fool when it comes to the heavy stuff and his personal bodyguard of super fit pickets and deadly flying hairsprays put up an almighty struggle with our valiant Mole.

If you can stand the nerve tingling excitement get your game from all good computer dealers.
Distributed by: Centresoft Tel: 021-520 7591 and R & R Software Tel: 0226 710414

For amazing graphics and outstanding sound effects run a gremlin through your micro.

Gremlin Graphics, Alpha House, 10 Carver Street, Sheffield S1 4FS. Telephone: (0742) 753423

**Gremlin
Graphics**



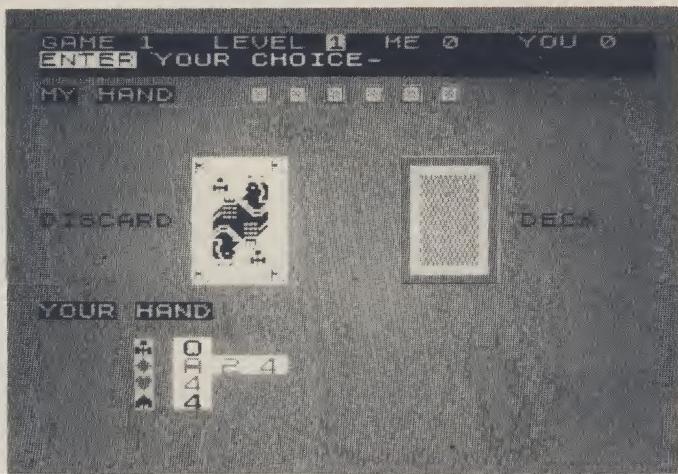
BEST BOARD/CARD/PUZZLE GAME

EIGHTS

48K SPECTRUM



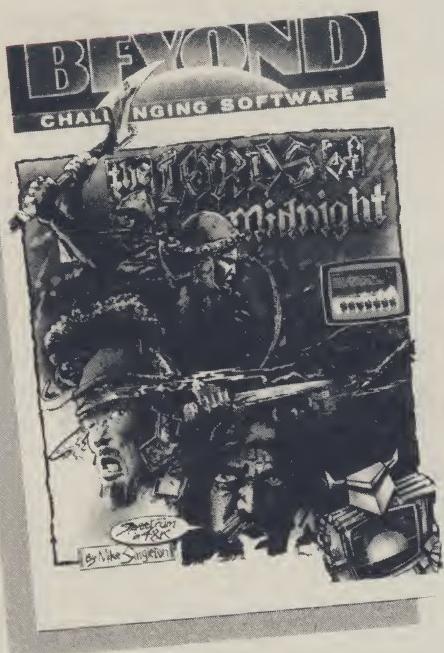
EIGHTS
by ATLANTIS SOFTWARE



The budget priced game from Atlantis was a clear winner in this category, although there were masses of votes for games like Scrabble and Cyrus IS Chess, both of which pre-date 84. *Eights* is an elegantly written program based on a clever and playable card game, and certainly at its price is excellent value. Not far behind came Artic's *Death Chess 5000* and DK'Tronics' *Jumbly*.

STATE OF THE ART AWARD

LORDS OF MIDNIGHT
by BEYOND SOFTWARE



Beyond's supremacy in this category is undoubted with 34% of the total vote. Second is Ultimate with *Sabre Wulf* with 12% and *Jet Set Willy* coming in third from Software Projects. *Lords of Midnight* author, Mike Singleton, deserves the award for the development of this popular game, which seems to occupy the time and imagination of so many people. Derek Brewster said, 'Many features of the game are new or are developed to an elaborate degree setting new high standards in Spectrum software.'



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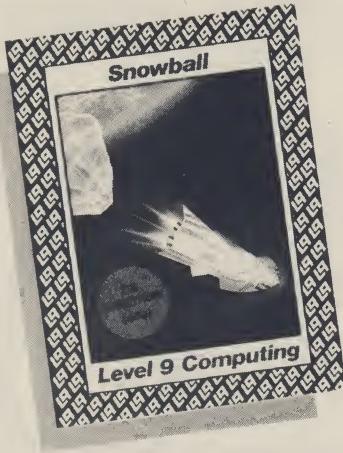




BEST TEXT-ONLY ADVENTURE

SNOWBALL

by LEVEL 9 COMPUTING



Text-only adventures still represent a large chunk of the market, with Level 9 one of the most respected (although they too have turned to graphics with their latest release). *Snowball* won this category hands down, with *Dennis through the Drinking Glass* by Applications coming in second and Incentive's *Mountains of Ket* following close behind. There were many votes in this category for games which were not copyrighted in 1984, and were thus ineligible.

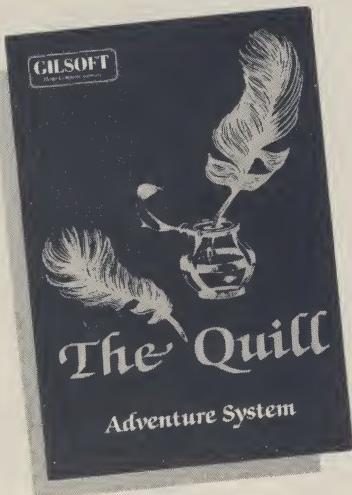
In adventures it is usual to boast of the number of locations, but *Snowball* probably takes the biscuit with over 7,000. Of the game, Derek Brewster said, 'This is very much my idea of an adventure and is set to become a classic.'



BEST UTILITY PROGRAM

THE QUILL

by GILSOFT



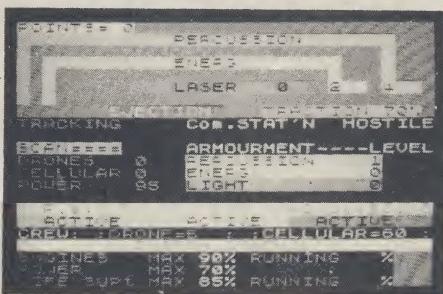
This was a very hard fought category with Gilsoft just pipping Oasis to the finishing line by one vote! So the machine code adventure writing utility *The Quill*, another long stayer in the CRASH Hotline chart, takes the award from the graphics designer *White Lightning*. Third was *Melbourne Draw* from Melbourne House. Certainly Gilsoft have made an appreciable dent in adventuring consciousness with *The Quill*, not only by offering BASIC programmers the opportunity to write complex machine code adventures, but also in spawning a plethora of commercially marketed adventure games from numerous software houses, many of which have been excellent. To complement *The Quill*, there is now *The Illustrator*, a graphics designer specially created to work in conjunction with *The Quill*.



BUMMER OF THE YEAR

KOSMIK PIRATE

by ELEPHANT SOFTWARE



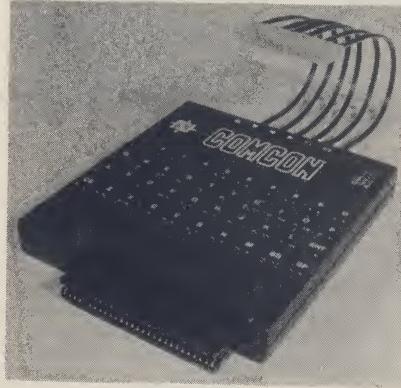
The top contenders in this category were numerous! That the winner received only 17% of the total vote goes to show that most of you have your favourite bummers, and they are often quite varied. Following very closely on the heels of *Kosmik Pirate* comes the megadventure *Voyage Into the Unknown* from Mastertronic, and trailing in as a sad third *Formula One* from Spirit Software.

BEST HARDWARE ADD-ON

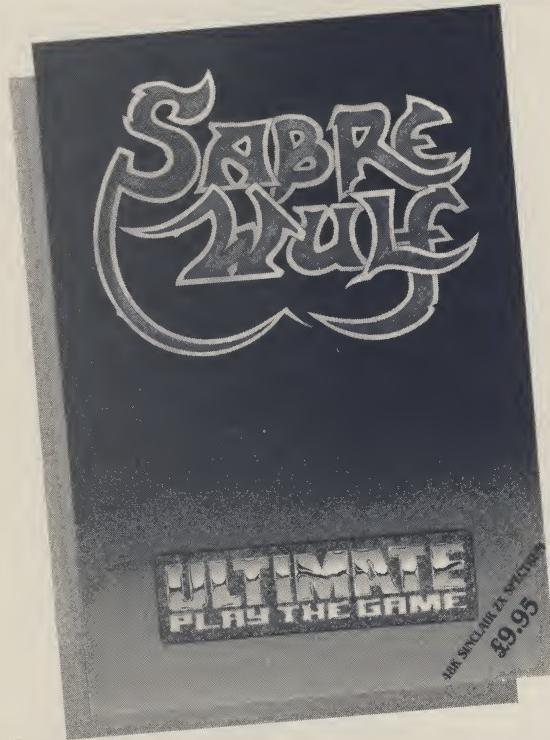
COMCON JOYSTICK INTERFACE by FREL LIMITED

It would only be fair to point out that the winner by votes was the Currah Microspeech unit, but this is not eligible as the unit was released in 83 and not 84. But Frel were not so far behind in votes, as this essentially simple plug-in joystick interface has proved enormously popular and within a fairly short space of time too. The second most voted for add-on was the Ram Electronics Ram Turbo interface.

Perhaps the significant factor in the popularity of the Comcon interface is its simplicity and flexibility, working as it does with virtually any game, and programmable in seconds as the game loads. Also, because of its simple construction, the price is among the lowest on the market – an added advantage.



BEST LOOKING ADVERT TO APPEAR IN A MAGAZINE



SABRE WULF from ULTIMATE



This category certainly aroused a lot of interest, and a wide spread of choices too, reflected in the low percentage scored by the winner, Ultimate's *Sabre Wulf* ad with 11% of the total vote. A fairly close second was the Software Projects' ad for *Jet Set Willy*, followed by the strikingly simple ad from Mikro-Gen for *Pyjamarama*. While no one could really argue that all three adverts are not well designed and attractive, we wonder how much opinions have been swayed by the games themselves!?

May we take this opportunity to thank everyone of our readers who contributed to these awards by voting and writing in. Certificates for each award are being given to the companies involved. They are valuable because they result from the best panel of experts available – you, the readers, purchasers and players of the games.

As promised, the first 15 voting forms pulled from the bag after collation of the results, will each receive £10 worth of software of their choice plus a CRASH t-shirt. They are:

Stephen Lighfoot, Sutton Coldfield W. Midlands
H. Leech, Watford, Herts
Mrs. C. Moore, Intake, Sheffield

Julian Paine, Reading, Berks
David Ross, Glasgow, Scotland
Barry McLeod, Bodmin, Cornwall
Paul Edwin Hutchinson, Upper Norwood, London
Stephen Nye, Frome, Somerset
Philip Day, Grimsby, South Humberside
Wayne Thircwell, Sunderland, Tyne & Wear
Paul Hobbs, Southampton, Hants
Terry Willis Jnr, Bolney, West Sussex
Paul Collins, Chigwell, Essex
D. Griffin, Millom, Cumbria
Richard Holland, Sheffield, S. Yorks

The CRASH HOTLINE

THE CRASH HOTLINE PHONE NUMBER IS
0584 (Ludlow) 3015

HOW TO USE THE CRASH HOTLINE

Method 1

Ring the Hotline telephone number (above) and record your votes on the answering machine. Please speak clearly, spelling out name and address if it's a 'difficult' one! List your five games starting with the number one.

Method 2

Use the coupon below, making sure you fill in all the details. Pop the coupon in an envelope and send it to us. Alternatively you may send a letter if you don't want to cut up the mag.

The telephone Hotline is getting very jammed after a new issue comes out, so bear with us if it's engaged. If all else fails - write in!



Well, the Christmas chart sees quite a few changes from last month. Not much at the very top where *Sabre Wulf* and *Lords of Midnight* are well fixed, but *Daley'd decathlon* moves up 4 to the number 3 slot, and *Sabre Wulf* finds its pre-eminent position threatened by none other than the biggest climber of the month, *stablemate* and follow up *Underwurld*, straight into the chart at number 6. *Monty Mole* also climbs to the number 4 slot, with *Wally Week's nightmare* not far behind, a big climb from 25 to 10 for *Pyjamarama*. One of the biggest leapers this month is *Hewson's Legend of Avalon*, up 32 places to number 12. With nearly two weeks less voting, *Ultimate's* third in the trilogy, *Knight Lore*, has appeared from nowhere at the 23 position, and that makes *Ultimate* look set to take an incredible record for the top three places in the chart. Quite a few new arrivals this month; *Deus Ex Machina* from *Automata*, a rare high entry for an adventure from Derek Brester's *Kentilla* at 32, the *Gargoyle Tir Na Nog* at 40, and an ironic coupling of *Quicksilva's Ant Attack* at 43 and *Zombie Zombie* at 44. Derke's other game *Jasper* give *Micromage* yet another chart entry. *Kokotoni Wilf* makes a climb of 9 places, and *Melbourne's Sherlock* also climbs well, 13 places up to 27.

Lords of Midnight still lies second to *Sherlock*, but *Minight* help is on the way, with the release of follow up *Doomdark's Revenge*. A startling rush for the top comes from new company *Mizar* with their marvellous *Out of the Shadows*, straight in for the first time at number 3. The Adventure chart certainly moves around a bit, and *Snowball* which went from 3 to last month's 9, is back up to this month's 4 position. *Level 9* are well in, however, as brand new *Return to Eden* clocks in not far behind at 7. Other newcomers are *Tower of Despair* from *Games Workshop* at 11, third in the *Ket Trilogy*, *The Final Mission* from *Incentive*.

BRILL 'N' FAB HOTLINE PRIZES!!

Whether you phone or write in, all names go into the voluminous bag to be drawn monthly. First out receives £40 worth of software plus a CRASH tee shirt, and the five runners-up receive three issues of CRASH free plus a CRASH tee shirt.

Others may try and copy us but the CRASH HOTLINE CHART is the one that counts - and you are the people that make it count.

YOUR VOTE IS EXTREMELY IMPORTANT — USE IT PLEASE!

CRASH HOTLINE WRITE IN COUPON

Please use block capitals and write clearly!

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Address

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Send your coupon to: CRASH HOTLINE, PO BOX 10,
LUDLOW, SHROPSHIRE SY8 1DB



My top five favourite programs in descending order are:

TITLE	PRODUCER
1	
2	
3	
4	
5	

CRASH HOTLINE

This month's Hotline winner is **Darren Castle**, Beckenham, Kent, and the four runners up are; **Rhys Davies**, Wooston, Leicester; **Richard Hilton**, Corg Park, Amersham, Bucks; **Justin Driver**, Westcliff-on-Sea, Essex; **A. Witchell**, Alveston, Bristol

TOP 50 FOR JANUARY

(Figures in parenthesis indicate last month's position)

1	(-1)	SABRE WULF	Ultimate
2	(-2)	LORDS OF MIDNIGHT	Beyond
3	(-7)	DALEY THOMPSON'S DECATHLON	Ocean
4	(10)	MONTY MOLE	Gremlin Graphics
5	(-3)	MATCHPOINT	Psiion/Sinclair
6	(—)	UNDERWURLDE	Ultimate
7	(-4)	JET SET WILLY	Software Projects
8	(-5)	FULL THROTTLE	Micromega
9	(-6)	ATIC ATAC	Ultimate
10	(25)	PYJAMARAMA	Mikro-Gen
11	(-8)	CODE NAME MAT	Micromega
12	(44)	THE LEGEND OF AVALON	Hewson
13	(-9)	LUNAR JETMAN	Ultimate
14	(14)	AUTOMANIA	Mikro-Gen
15	(11)	MANIC MINER	Software Projects
16	(72)	MOON ALERT	Ocean
17	(13)	TLL Vortex	
18	(27)	KOKOTONI WILF	Elite
19	(15)	WHEELIE	Microsphere
20	(16)	CHUCKIE EGG	A&F Software
21	(17)	KOSMIC KANGA	Micromania
22	(78)	TRASHMAN	New Generation
23	(—)	KNIGHT LORE	Ultimate
24	(19)	ANTICS	Bug-Byte
25	(20)	PSYTRON	Beyond
26	(2Y)	WORSE THINGS HAPPEN AT SEA	
27	(40)	Silversoft	
28	(22)	SHERLOCK	Melbourne House
29	(28)	THE HOBBIT	Melbourne House
30	(23)	BEACH-HEAD US	Gold
31	(—)	STOP THE EXPRESS	Sinclair
32	(—)	DEUS EX MACHINA	Automata
33	(24)	KENTILLA	Micromega
34	(26)	AD ASTRA	Argoyle Games
35	(31)	DEATHCHASE	Micromega
36	(32)	THE HULK	Adventure International
37	(48)	FOOTBALL MANAGER	
38	(29)	Addictive Games	
39	(30)	FRANK N. STEIN P. S. S.	
40	(—)	SCUBA DIVE	Durell
41	(33)	POGO	Ocean
42	(34)	TIR NA NOG	Gargoyle Games
43	(35)	FACTORY BREAKOUT	Poppy Soft
44	(—)	THE QUILL	Gilsoft
45	(36)	ANT ATTACK	Quicksilva
46	(37)	ZOMBIE ZOMBIE	Quicksilva
47	(38)	JETPAC	Ultimate
48	(39)	ANDROID 2	Vortex
49	(—)	CAVELON	Ocean
50	(41)	FIGHTER PILOT	Digital Integration
		JASPER	Micromega
		PYRAMID	Fantasy

VOTE for the CHARTS



This month's Adventure Trail winner is; **Neil G. Milne**, Parkneuk, Dunfermline, Fife; **Mark Watts**, Norwich, Norfolk; **Wah Wai Wan**, Liverpool; **Stewart Shellard**, Anchorage Park, Portsmouth, Hants; **Richard Blachford**, Sundridge Park, Bromley, Kent.

CRASH ADVENTURE CHART

1	(-1)	SHERLOCK	Melbourne House
2	(-2)	LORDS OF MIDNIGHT	Beyond
3	(—)	OUT OF THE SHADOWS	Mizar
4	(-9)	SNOWBALL	Level 9
5	(—)	KENTILLA	Micromega
6	(-5)	HOBBIT	Melbourne House
7	(—)	RETURN TO EDEN	Level 9
8	(-7)	WAYDOR I.M.S.	
9	(-5)	HULK	Adventure International
10	(11)	URBAN UPSTART	Shepherd
11	(—)	TOWER OF DESPAIR	
12	(73)	Games Workshop	
13	(—)	QUEST FOR THE HOLY GRAIL	
14	(-6)	Dream Software	
15	(16)	THE FINAL MISSION	Incentive
16	(17)	CIRCUS	Channel 8
17	(22)	COLOSSAL ADVENTURE	Level 9
18	(11)	GOLDEN APPLE	Artic
19	(10)	ESPIONAGE ISLAND	Artic
20	(—)	ORACLE'S CAVE	Dorcas
21	(29)	VELNOR'S LAIR	Quicksilva
22	(12)	TEMPLE OF VRAN	Incentive
23	(74)	TEN LITTLE INDIANS	Channel 8
24	(22)	VALHALLA	Legend
25	(-3)	SHIP OF DOOM	Artic
26	(18)	MAGIC MOUNTAIN	Phipps Associates
27	(30)	LORDS OF TIME	Level 9
28	(—)	MOUNTAINS OF KET	Incentive
29	(—)	MESSAGE FROM ANDROMEDA	Interceptor
30	(—)	TWIN KINGDON VALLEY	Bug-Byte
		HAMSTEAD	Melbourne House
		INCA CURSE	Artic

SPECTRUM +

= SPECTRUM

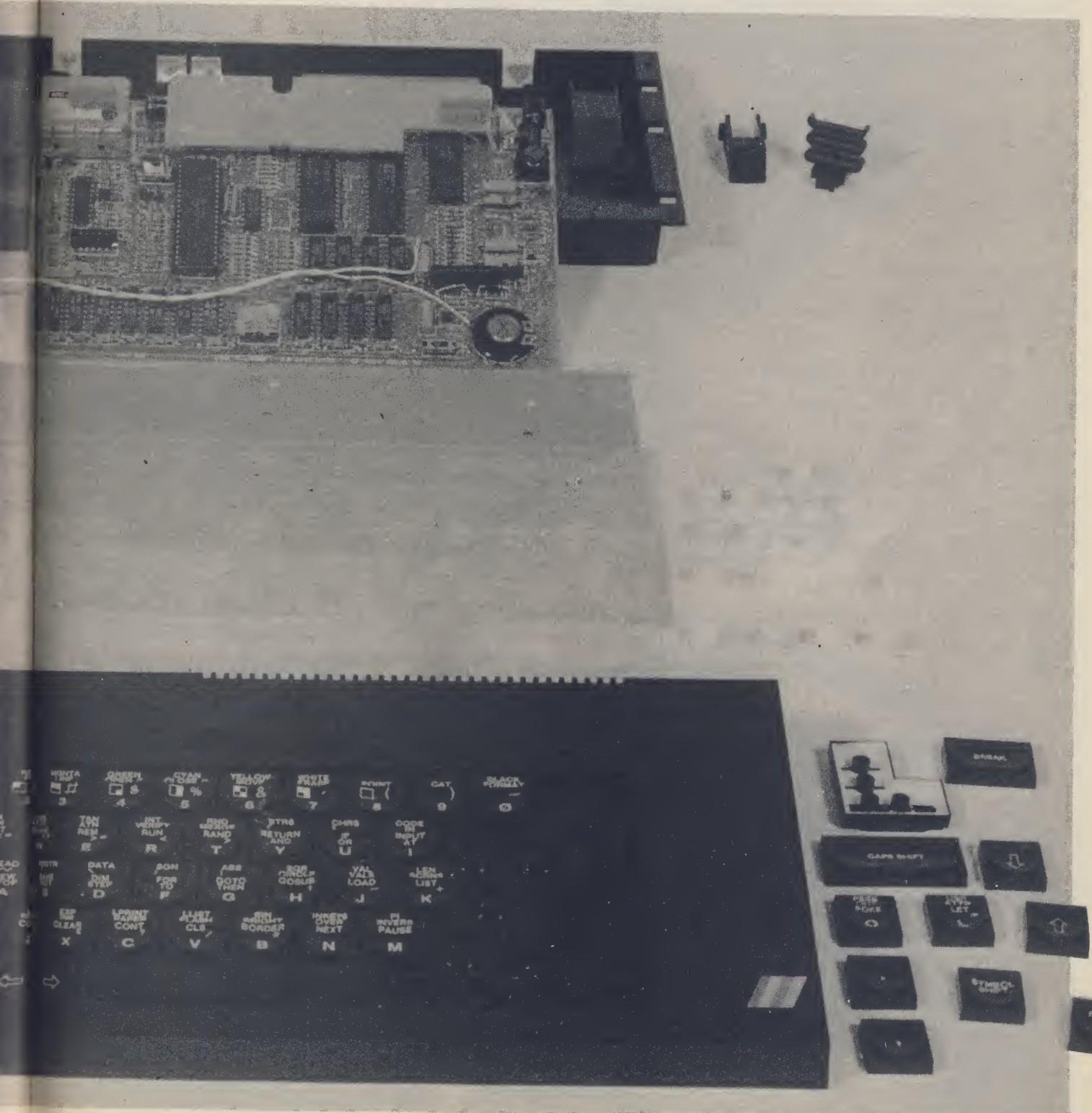
Newcomers to the Spectrum will be faced with a difficult choice. To Spectrum or to Spectrum +, that is the question here.

The ZX 81 membrane keyboard complaints had not even faded, when the Spectrum rubber keys were already getting the full treatment from not too happy users. Given the fact that most competitors have a typewriter style keyboard, there was no way that this situation could continue. True enough, Sir Clive has had to give in to the complaints and provide the Spectrum with a better input facility. His main objective obviously is to bring the Spectrum in line with the likes of Commodore and MSX. By doing this he has eliminated one of the major arguments against the purchase of the Spectrum, but at a cost. The price of the SpectrumY has nearly reached the Commodore level, and the question is whether the extra fifty pounds are wisely invested. Anybody expecting to have got away from the membrane style keyboard will very soon be disillusioned. A look at the construction of the keyboard will soon verify, why the action of the new keyboard does not live up to the cosmetic improvements. Hidden beneath the excellent double injection moulded keys is a modified version of the rubber mat which is responsible for the soggy return force of the keys. The collapsible domes are actuated by a nylon plunger, which provides guidance for the long travel. The early complaints of keytop losses is due to an error in tooling, which does not provide a pressfit between the plunger and the keytop. There should be no problem in correcting this problem on further production. The new key lay-out with the extra keys has increased the layers in the membrane. The extra keys improve program input tremendously. Of significance are especially the extended mode, the edit and delete and the punctuation keys. The special cursor keys are especially useful for the edit mode. Anybody considering upgrading the standard Spectrum with an add-on keyboard will find that for the same extra cost the quality of the key action will definitely be better, but that very few add-on keyboards will offer the extra key facilities provided with the SpectrumY and if so, at a higher cost. The annotation of the keys is excellent and the doubleshot technique guarantees unlimited life and no fading of the lettering. None of the add-on keyboards can match the Sinclair version. Criticism has been raised for the lack of colour coding as with the original Spectrum keyboard, but the various modes are clearly defined by the positioning of the legends.

In conclusion, it will be very difficult to make an outright decision as to whether to go for an add-on keyboard or to go for the official Sinclair version. Touch typists won't have trouble in reaching a fast decision, but I suspect 99% of Spectrum owners don't fall into this category. For these it will be a matter of personal choice.



PLUS KEYBOARD





WIN A JOYSTICK

The COMCON retails at £19.95 and is a useful supplement that is easily programmed to enable your joystick to work with any game. There are six function connectors which you simply plug into the appropriate Spectrum key on the mimick panel and, presto! You're away!

The COMCON features two independent fire actions – Photon Blasters and Neutron Bombs at the touch of your finger. There is also an extension port for other add-ons like Currah Microspeech or for connection to a proper monitor.

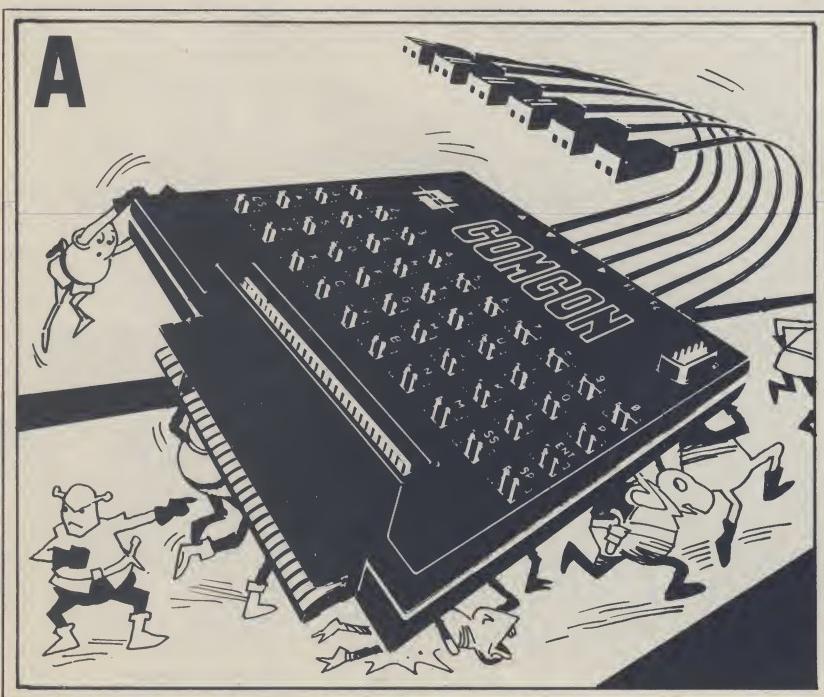
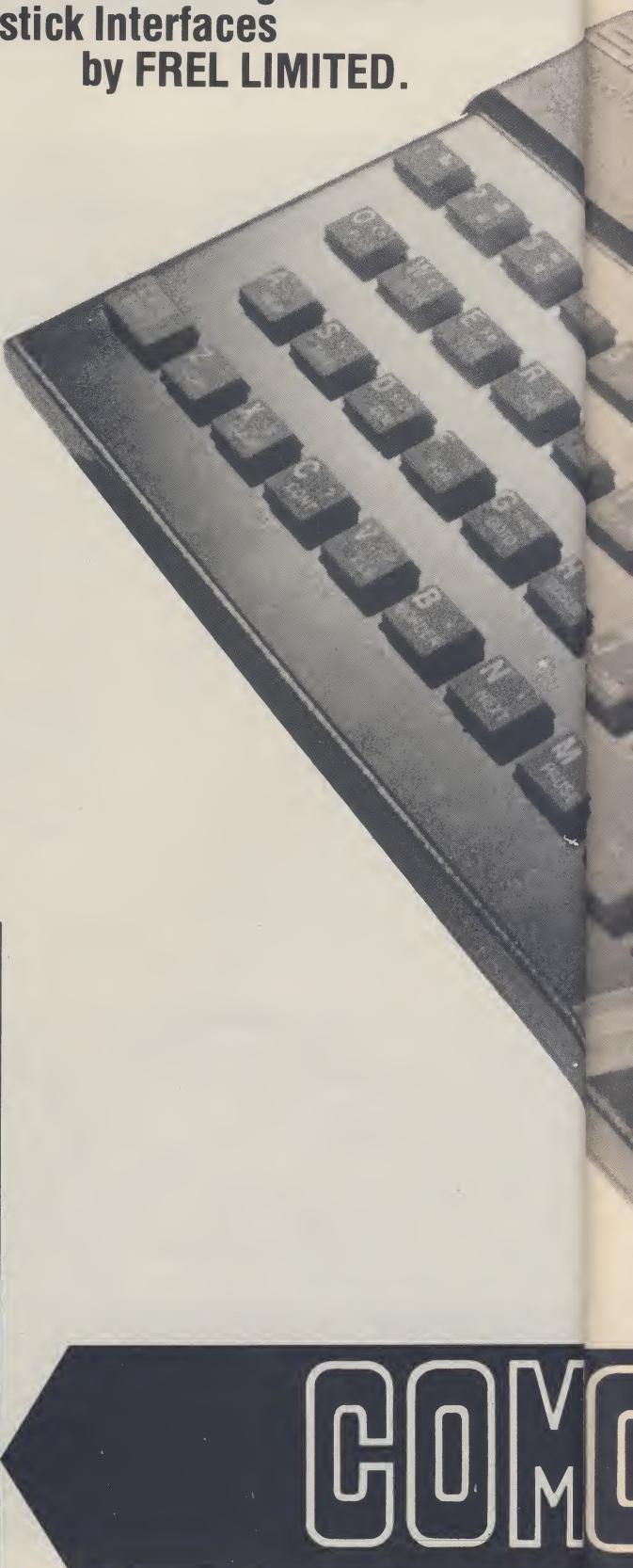
The COMCON is compatible with all Atari type joysticks (which means just about everything on the market). The joystick action is also compatible with any add-ons, including Microdrive, making for a truly versatile piece of equipment. Should you be the owner of a new Spectrum+, don't worry, the COMCON fits that too.

As a testimonial to the usefulness of the COMCON Interface, all we can say is that the CRASH reviewers have been using it since it came out, and none of them would be without one now.

If you would like to win a COMCON Joystick Interface, all you have to do is bring your powers of observation to bear and study the two pictures below. As you can see they feature Oli-bugs making off with their copy of the COMCON (these things are everywhere!) The two pictures appear to be identical, but there are 10 differences in the one on the right. Circle the 10 differences on drawing B, fill in the coupon (you can photocopy it if you prefer) and send it to: COMCON COMPETITION, CRASH MAGAZINE, PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB to arrive no later than first post on January 18 1985

Add something very special to your Spectrum by winning one of five COMCON Programmable Joystick Interfaces

by FREL LIMITED.



K INTERFACE!!



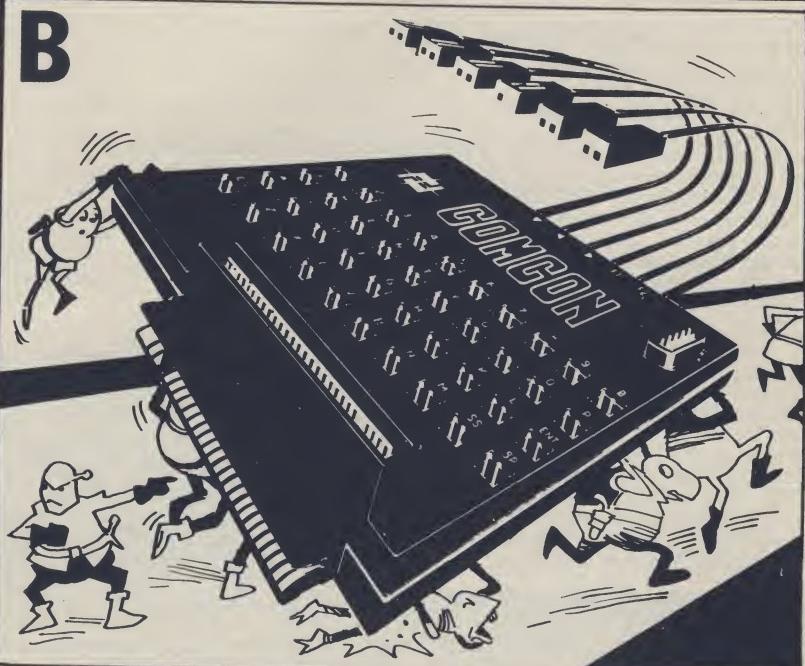
COMCON COMPETITION

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B



COMON

MODEM '85 ?

FRANCO FREY PEERS AHEAD AT A NEW HARDWARE YEAR

1985 could well be the year of the modems. Several companies have developed low-cost units which enable Spectrums to communicate via the telephone lines. The technology is there, but what about the need for this device? An obvious plus is the access to Teletext services such as Prestel, Ceefax, Oracle, Micronet 800 etc. These services offer enough in 1985 to warrant the capital investment of a modem remains to be seen. How many households have a TV set with Teletext facilities which, after the initial few days of curiosity, never get used again? Electronic mailbox services may prove too expensive for private users, but who knows what the postal rates will be like next year. The modem may link-up computers between friends, but many will be put off by the enormous telephone bills. Still, perhaps this is a new way of transmitting love letters, or copies of pirated games, or just generally making new pen-friends (microfriends, in this case).

A fair number of Spectrum owners will by now have acquired the long awaited microdrives. 1985 will probably see the new waferdrives take off. Whether the extra reliability is worth the extra price will depend on the individual. (The price of the waferdrive cartridges certainly exceeds the Sinclair versions.) Personally I see more use in a low cost floppy disk drive system. Just to prove the point, Timex have launched a 3-inch disk system which also incorporates a communications device with two serial ports. Basically it is an interface/microdrive replacement providing superior speed and reliability to the microdrive unit. This could be the real small business user upgrade for 1985, especially with the promise of a CPM upgrade.

If you are looking for a hard copy system, the situation has improved drastically. The Alphacom 32 printer is the lowest entry point perhaps, but nevertheless it is very reliable. Anything more serious requires either a Centronics interface or the Interface 1 serial communications facility. Either way there are a large number of profes-

sional, low cost matrix and daisy wheel printers or even low colour plotters which have come within the reach of most home users, and next year will see the prices drop even more.

TV manufacturers have realised the potential of TV monitor combos, and the home user will combine the purchase of a computer monitor with that of a second TV set (at a normal television set price). The improvement on the picture quality is well worth the expense—that's if you can afford it, of course. After the lightpen and the digital tracer it is the turn of the touchtablet; this is certainly the best drawing input device to use, but with a price tag higher than the Spectrum itself it has a somewhat limited appeal. Robotics suffers from the same illness. Although there is a lot of interest in this new technology, the products suffer from a far too high entry level as regards pricing. This is the reason why 1985 will not be the year of R2D2. But perhaps it will be the year to switch to an improved computer. Sinclair has indicated the launch of a new portable computer with CMOS power requirements and flat screen technology. Microdrives will be included in the package. Better still would be the inclusion of the expected hard disk-like wafer memory. Whether the flat screen display will be a colour version or not has not been indicated (the Japanese have a brilliant colour LCD screen for their portable TV production), so it is uncertain whether this is a games machine or not. Let's hope that the Polaroid battery gets left behind, as anyone who has been using the Sinclair flat screen television could inform you of the diabolical costs of the same.

Looking forward to a new year can sometimes be as tricky as making pools' predictions.

Either one gets it right and joins the self-congratulatory 'I told you so' prophets, or one gets it entirely wrong and admits as much by keeping a distinctly low profile. On the other hand, one can play it safe and give away broad, vague predictions and alter their interpretation as time goes by.

I will leave the doomsday prophecies to the more pessimistic onlookers, who have predicted the collapse of the computer games industry before Sinclair became a household name. Computer games are here to stay. In some way or another they will continue to capture the interest of the game-loving crowds. Although the games software has travelled light years and reached an unrecognisable level in comparison with late 1983, the peripherals history still seems to be in its infancy. Apart from the various peripherals which are essential and convert the Spectrum into a minimum configuration games machine (joystick interface and sound amplifiers), very little has yet to make an impact in the add-ons market. The Currah Microspeech unit, which seemed to be the success story of yesterday, has not managed to make a sufficient impact on the software houses, and very few games provide an incentive to splash out on a speech synthesiser. The much-loved Track Ball still hasn't appeared in large numbers, but this could easily change in 1985 if the price drops to a reasonable level. But if the real advantage of the Track Ball—which is undoubtedly the proportional speed or position control—is to be felt, a special interface will be required, and this in turn will have to be written. The Track Ball will face an even greater problem than the speech synthesiser. The Stack Light Rifle suffered a

similar fate, and even today only a handful of programs have been written for this excellent games peripheral. The buyers felt cheated by the sheer lack of software support.

MSX?

1985 should see the make or break of MSX in this country. Several MSX extensions will be launched late next year. Anyone who has been to the computer trade shows in the Far East will recognise the hardware potential behind MSX. Probably the most exceptional facility is the link-up of the video disc system for the arcade-style, random access video backup. With video disc system prices falling to an acceptable level, this means that highly complex arcade games will be made available to you in the living room. Several systems will be seen where the MSX home computer will be part of the Hi-Fi tower and fully integrated with the other home leisure equipment, such as music centre, TV etc. In this context the computer could be seen as controller or organiser of home activities. Your evenings could well be pre-programmed (what a thought!) and your centre would provide you with dim lights, 50 minutes of Dallas, the news, then a spot of relaxing music, an hour or so of arcade adventure, half an hour communications time with your modern associates and friends, and then finally switch itself off, making sure that when you leave the room the lights and heating go off as well. Not really my cup of tea, but who knows, I could have a different outlook altogether at the end of 1985. In the meantime I'll stick to my Spectrum and hang on more and more peripherals until the power supply packs up....



Spectrum Speech Synthesizer!

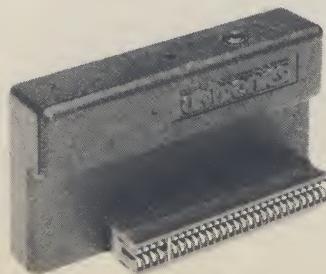


The dk'tronics synthesizer, like all their other peripherals is both Spectrum & Spectrum plus compatible, it uses the popular SLO/256 speech chip and has an almost infinite vocabulary. It is supplied with a text to speech converter for ease of speech output creation. Everything you wish to be spoken is entered in normal English, without special control codes or characters, it is therefore extremely easy to use. The voicing of the words is completely user transparent and the computer can carry on its normal running of a program while the speech chip is talking.

Although there are only 26 letters in the alphabet, letters have a totally different sound when used in different words. For example, The "a" in Hay is much longer and softer than in Hat. When you speak you automatically make adjustments because you know just how a word should sound. Not quite so easy with a computer. After looking at other speech synthesizers we decided that it was essential that the dk'tronics Spectrum Speech would offer a simple system that would enable the user to produce realistic speech that was instantly recognisable.

The solution to the problem was extremely complicated, it required hours of programming to enable the computer to look at the individual letters that make up each word and compare there relative position to each other before deciding on the appropriate sound.

I am delighted that we have now perfected what I consider to be the best Spectrum Speech Synthesizer on the market, one which has achieved my aim, within the limitations of the allophones, of producing realistic speech.



At only £24.95 the dk'tronics speech synthesizer represents remarkable value for money. Naturally it is compatible with their other peripherals which can be used via the rear through connector.

Available from department stores and good computer shops everywhere or direct from
dk'tronics, Saffron Walden, Essex CB11 3AQ. 1CM
Tel. (0799) 26350 add £1.25 post and packing.

preview

It was during the Personal Computer Games show at Solihull, held last summer, that ELITE SOFTWARE announced their intention to set up deals with American television companies to licence well known shows for the production of computer games. And they have been as good as their word. CRASH takes a stop press sneak preview at the latest game from ELITE - AIRWOLF.

elite

Airwolf

After Elite's debut game, KOKOTONI WILF, came the first of the games adapted from well-known American TV shows, THE FALL GUY (which is reviewed in this issue). Their fourth game will be the officially licenced adaption of the popular car smashing DUKES OF HAZZARD. But before that we can look forward to yet another helicopter-based game in AIRWOLF.

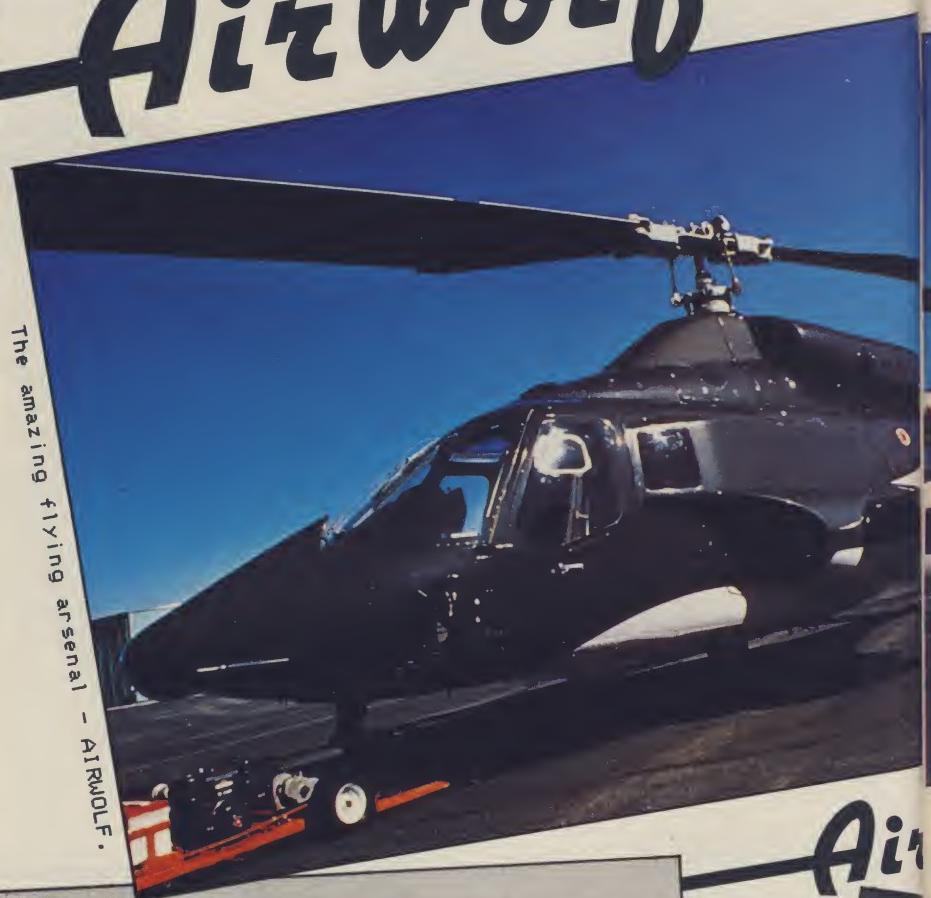
At the time Elite began negotiations for the rights to the series, AIRWOLF had not been seen in Britain, so in a way it was a gamble for the software house. A gamble that looks like paying off handsomely for the Midlands-based company, as AIRWOLF began its first run on British Television only a few weeks ago, and initial reactions to the series indicate that it will run for at least a further two series when the present one finishes in the New Year.

Elite didn't have it all their own way. The market for signing deals with TV shows is becoming extremely competitive, and the Manchester software house, Ocean, were also after a licence for AIRWOLF.

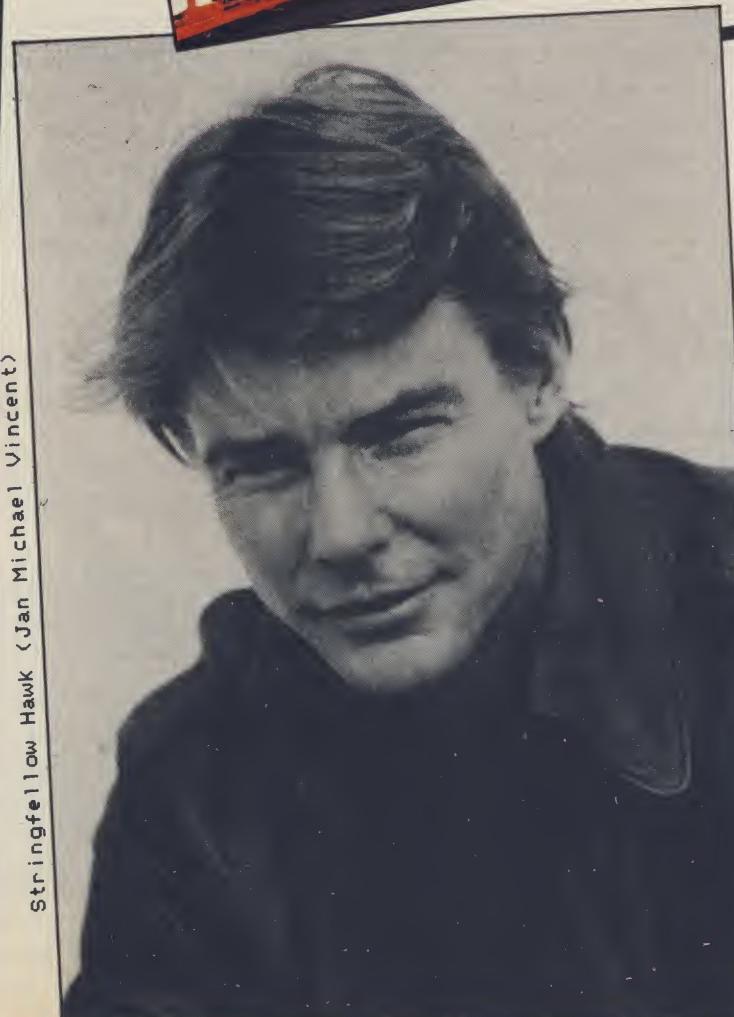
For those who haven't actually seen any of the programmes yet, AIRWOLF stars JAN MICHAEL VINCENT and ERNEST BORGnine, as the pilots of helicopters. Jan Michael Vincent plays a hero with the unlikely name of Stringfellow Hawk, who is constantly trying to rescue his brother. Naturally there are many different adventures to impede his task, quite a few of them involving the rescue of Santini (Borgnine) - a man always getting mixed up in something or other a bit on the shady side.

But the real star of the series is the shark-like monster fighting machine called AIRWOLF, a helicopter capable of taking out a small army single handed. It is AIRWOLF and its amazing capabilities around which Elite have constructed their new game.

The basic objective follows that of the TV series.



The amazing flying arsenal - AIRWOLF.



Stringfellow Hawk (Jan Michael Vincent)

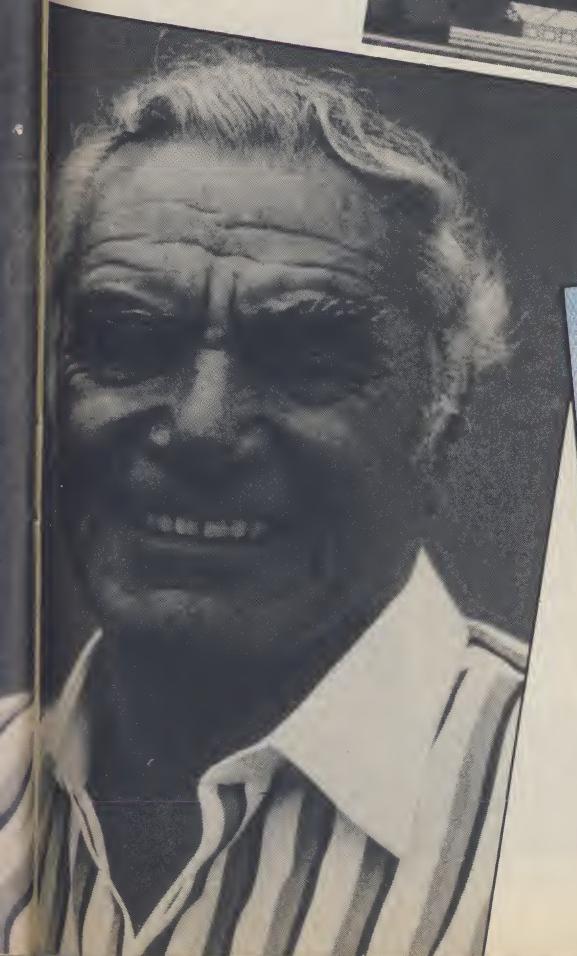
Co-star, Ernest Borgnine.

*r*wolf



You play Stringfellow Hawk (inside AIRWOLF of course) and you must rescue your brother who has been imprisoned somewhere inside a deep cavern complex. The game is based on a 16 screen grid of four by four, but only the outer screens are used for playing, making 12 in all. These are linked either vertically or horizontally, and it isn't just a question of getting through one and then onto the next. Adventure elements demand that you discover how the screens, and what happens in them, relate to each other, and you will have to advance to a screen, do something, and then return to an earlier screen where your actions have altered the circumstances, before carrying on.

The game starts in the cold Antarctic Mountains (the colour screen dump) and ends in the bowels of the giant cave system which you will have to explore. The screen pictures on these pages are from dumps made by Elite for this article, and as such they do not contain any graphics of AIRWOLF itself. To get a glimpse of the fabulous machine, you will have to wait for the full review next month, or buy a copy as soon as it's released!





The Red Kipper Flies at Midnight

YOU GET HOME ONE EVENING to discover a message on your answering machine. Something you'd thought hidden for good has reared its ugly head once again. Valkyrie 17 is active.

Over the next five nights a series of frantic phone calls convince you that the matter deserves further investigation. You receive a dossier on the activities of Valkyrie 17. Pieced together from fragmentary reports culled from the last forty years you slowly begin to put the whole thing together. Drakenfeur, Heinrich and Reichsmuller. The badge pressed into your hand on the station at _____. And that last desperate call for help from the Glitz Hotel overlooking Lake Bruntz.

Your cover is good. Very good in fact. You spend a few days sniffing around and then head up towards Lake Bruntz. You check in to the Glitz Hotel. It's the last lead you have. You seem to be getting nowhere.

Then on your way to the bar you sense a movement in the shadows. You feel a blow on your temple. And everything goes black...

Valkyrie 17 is an Adventure featuring both graphic and text locations. You will meet several different characters some of whom may help you while others see your demise as their sole purpose in life.

Included in the pack is a comprehensive dossier on Valkyrie 17. On the reverse of the cassette tape are the answerphone messages. And then of course there's the game itself.

LOADING TIME	5½ minutes.	MICRODRIVE	X/FER FUNCTION
LOCATIONS	100+	FUN FACTOR	8
LEVEL	?		
SOUND	Beep Beep		

HINTS

Watch your back, try not to get killed and mind your language.

The RamJam Corporation cannot accept responsibility for injury either mental or physical caused during the playing of Valkyrie 17. Furthermore the existence of these words affects your statutory rights.

© RamJam Corporation 1984.
(Although why we bother heaven only knows).





DEREK BREWSTER'S

Adventure Trail

Our Adventure Trail columnist, DEREK BREWSTER, sums up his feelings about the state of Spectrum adventures as we prepare to enter a new year...

THE VICTORIAN CHIP

ADVENTURING, as so many have come to know it, began with a mainframe and a copy of *Colossal Cavern* which even now is available for the home micro. Why should this be so when the technical improvements in the writing and implementation of adventure has increased markedly since that time? The reason gives a clue to the special attributes every popular adventure possesses, namely, a plot in which an adventurer can lose himself. The problems must be pitched somewhere in that narrow band where they are difficult and thought-provoking but, hopefully, entirely logical. But where an adventure really shows its class is when it often has the explorer preoccupied with two or more problems at the same time and can enable progress by more than one solution.

In an editorial some months ago I commented on how it is unwise for a company to release too many games on a modular basis. It would seem this advice to some extent is unnecessary as market forces have forced more selective releases from both adventure and arcade camps alike. CRASH was criticised some time ago for reviewing all games released instead of just those that merit distinction and yet the irony is, of the plethora of publications that line the newsagents' shelves, CRASH is now the one, with its CRASH SMASH awards, to distinguish and more overtly praise those games of the highest calibre every month. These pick of the

bunch, considering how far software has come in the last year, are great games indeed – a trip to the arcades is positively dull when compared to the choice and quality now available in millions of homes. Games playing has come a long way and will go much further.

People's expectations of game software is much higher than when microcomputing was a fresh and novel pastime. Everyone tried their hand at programming because they thought that's what micros were for – to learn all about programming, and the standard of software was initially low enough to encourage imitation and even improvement. However, people were soon glad to see their computers do anything following their own fruitless struggles. Now the scene is different; many see their computers for what they are – games machines.

Take the Spectrum's main rival, the Commodore 64. When first marketed, it was as a business computer to the incredible extent that it was only to be had in business shops. The inference was you couldn't have it for anything as frivolous as playing games. Hindsight, and in particular two important factors, made things clearer. One, the arrival of a small business computer on the scene with the likes of the Advance lined up with the Spectrum and the C64, which gave the lie to the idea that a business system could cost anything less than £1000.

Two, playing games isn't quite the frivolous nonentity some might have had us to believe. At a time when enforced leisure is the order of the day, playing computer games is a much better recreation than watching feeble-minded quiz shows on TV (Channel 4 made a brave attempt to keep television alive but alas their resolve faded with their fortunes). Computer games are sophisticated enough to be intellectually demanding; adventures are used in education as they are better, certainly more entertaining, than the prescribed medicine while the arcade side has given birth to genuinely instructive simulation programs. Speaking as one who is suspicious of the very word education, I think it unlikely that much good will come of educational software marketed as such; better for games to become more entertaining, thought-provoking and informative. A return to Victorian Values is one thing, being bored to brain-death is quite another.

Colossal Cavern spawned many text-only adventures in the early days of home computing but some luminaries of the computing press fall woefully short of their roles to inform of the differences between a knocked-off job and the program of several months incubation. This puzzled me enough (brought to a head having read a guide-book to adventures which was the most partisan load of drivel) to encourage my own entry onto the scene and the views which follow.

The modern equivalent of the original, good, mostly Basic, text-only adventure is the *Ket Trilogy*, a series of adventures marked by their sensibly cheap price, super atmosphere, easy and logical problems, and user-friendliness. A company that had machine code games right from the start was Artic Computing, who produced highly competent adventures with problems that lent themselves well to a new magazine phenomenon, the adventure



ADVENTURE TRAIL REVIEW RATINGS

ATMOSPHERE: reflects quality of location description and graphics and how credibly characters behave.

VOCABULARY: the completeness of the vocabulary and friendliness of response. All words and associated words (objects etc) in location descriptions should be included.

LOGIC: reflects the logic of the problems encountered and whether or not you are likely to be killed without warning or chance of escape.

DEBUGGING: indicates the level of crashproofing. A program should not be crashed simply by making an incorrect entry or by pressing an unfortunate combination of keys.

OVERALL: general rating based on price and the other ratings BUT NOT AN AVERAGE OF THE OTHER RATINGS.



help page, since they were very difficult and had but one solution. The early games were clinical by today's standards, needing the methodical approach of the crossword devotee with little attention paid to building up a consistent atmosphere. The early Artic software clearly had some appeal beyond that of its competitors but had one distinction which was to prove decisive in the struggle for survival in a very competitive market - the software was in your local computer shop and you could actually hand over your money and buy it.

Graphics were the next obvious improvement but alas many early efforts resulted in poor graphics or slow response times. However, one game stood out like no other. Based upon one of the most famous works of fantasy fiction, it marked a new era in book/computer program tie-ins, but more tellingly, in big finance and high pressure salesmanship. A cottage industry now seemed on the brink of renting out office space throughout the land but no one was complaining over the new commercialism because it had produced a computer program

every bit as good as the advertisement suggested. It was, of course, *The Hobbit* from Melbourne House. Years ahead of its time with super graphics and the first game to attempt true character interaction. Later a similar game to *The Hobbit* provided an option for those who had mastered its complexity. *Fantasia Diamond* from Hewson Consultants had an interesting storyline and endearing characters.

Character interaction was visibly demonstrated in another megagame of 1983, *Valhalla*, which introduced animation to adventuring, but Basic was too slow for the project and it is doubtful whether the interactions were ever truly intelligent. Unlike *The Hobbit*, the game didn't quite live up to the adverts. Animation may well prove a redundant offshoot for the unmodified Spectrum since it adds little to the intelligence of an adventure but consumes a vast amount of memory - memory better used increasing interaction with the computer. Character interaction has recently reached a new level of intelligence with a further breakthrough from Melbourne House. The worthy successor to *The Hobbit*, Sher-

lock in the end proved too ambitious but nonetheless is a significant milestone on the road to intelligent characters. Perhaps with the removal of the inadequate graphics (a concession to market forces) the game could have struck out more decisively along the path of meaningful character interaction with this becoming the sole selling point. Whatever, *Sherlock* will become a memorable milestone.

The Quill has given the chance to many who haven't got the time or inclination to program a machine code game from scratch, and who can blame them, it is debatable whether any 40K adventure needs to be 100% machine code. Gilsoft's creation has lead to a great surge of adventure releases but most, sadly, do not acknowledge the need to give the customer a much greater depth in theme and plot in return for the limitations imposed by *The Quill*. However, notable exceptions are classics in their own right: *Denis Through the Drinking Glass*, *Hampstead* and *Tower of Despair*. *The Quill* is just the most public face of a good number of utilities employed by many adventure software

houses. Level 9 make no secret of their own 'a code' used to devise *Snowball* and boast an ever-increasing library of compression techniques used to instigate the likes of *Return to Eden*. These games are twice the length you might expect of a well-written game and are, in addition, user-friendly, highly intelligent and imaginative, with good descriptions producing a rich atmosphere.

Just as some people look with suspicion toward a Quilled game (has it just been knocked-off?) so they might well be wary of the five or six part megagame. Domark's *Eureka!* is composed of many parts, like Mastervision's *Wrath of Magra*, but it is my view that such games are overly involved and convoluted, and this apparent complexity is to smokescreen what is a shortfall in programming skills; size is simply not an important factor, anyone can write 200K of gobbledegook.

Some journalists are forever going on about the great American Software invasion from across the Atlantic but perhaps it has dissipated against our shores and I am sure even a flight out to the

VOTING FOR THE ADVENTURE CHART

The CRASH Adventure Chart has picked up considerably since we first introduced it, with more and more votes coming in every day! To make life easier for sorting, we are now providing a separate write-in

form, so please use it for the Adventure Chart, and not the one included at the bottom of the Hotline details. If you are voting on both charts, you may send both forms together in the same envelope of course.

How to register your votes

There seems to have been some confusion in the minds of voters for the Adventure Chart, so to clarify the situations, here's how we do it. You may vote for as many titles as you wish (not just five as in the Hotline Chart) and you may award

any of them points out of ten. So, for instance, you might vote for seven titles giving each of them ten points if you think they are worth it, or only three and give them one each. These votes are then added up for each title and the total is divided by the number of people who voted for the program resulting in an aggregate figure. From these figures, the top thirty adventure games are taken in descending order.

Phoned-in votes are accepted over the Hotline (0584 3015) in the same way (please state that you are vot-

ing for the Adventure Chart at the beginning), and may also be written in letter form without the use of the coupon if you prefer.

Adventure Chart Prize Draw

And don't forget that, like the Hotline Chart, you can win prizes! Each month we draw a winner from the voters, who receives £40 worth of software and a CRASH T-shirt, with four runners-up each getting a T-shirt and a mini-subscription to CRASH for three months.

ADVENTURE CHART COUPON

Name

Address

.....
postcode

Remember - points out of ten for as many titles as you wish.

Send your coupon to: CRASH ADVENTURE TRAIL, PO BOX 10,
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tír na nòg



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Tír Na Nòg – a vast and complex adventure, in a magical celtic landscape.

Tír Na Nòg – a most stunning visual experience, with state-of-the-art film animation.

Tír Na Nòg – a true computer movie.

ALSO FROM GARGOYLE:
THE STUNNING SPACE GAME,
AD ASTRA - £5.95



States would only confirm that which I have long suspected - there's precious little to shout about above the razzmatazz.

One game released this summer was so original and outstandingly brilliant it caught many on the hop just as they were about to forget of software innovation until the autumn. *Lords of Midnight* represented a significant leap in programming skills used to develop an entirely new theme. The Land of Midnight is an extraordinary invention and anyone who has not yet seen it has not seen half of what the Spectrum has to offer. The game is the crowning jewel in microcomputer games respectability.

So what can we expect from the future? Well, graphics of a consistently high standard are on the menu, but more than this, they will become an

integral part of the adventure and not just a decorative appendage tacked on to brighten up proceedings. Graphics will broaden out from just pictures to diagrams, charts and even to the map that at the moment is painstakingly committed to paper. The pictures will carry clues and figures showing which characters are present. These characters will be larger than life as they realistically go about their everyday lives cementing a greater belief in the whole adventure. The microdrive will finally be exploited for what it is, a refined fast storage device with immense possibilities, and the days of solitary computing may seem a thing of the past as the Spectrum's networking capabilities string along the thoughts of many minds.

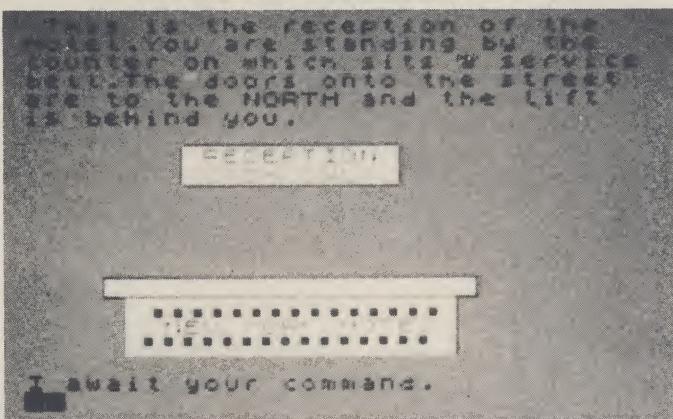
favourably with games three times the price. Responses are fast and friendly, the graphics are very simple but neat and well presented and good descriptions add to a super, despicable plot.

COMMENTS

Difficulty: easy
Graphics: some, simple but well drawn

Presentation: good
Input facility: verb/noun
Response: very fast
Special features:
General rating: good value.

Atmosphere	7
Vocabulary	6
Logic	7
Debugging	10
Overall value	7



MAFIA CONTRACT

Producer: Atlantis Software
Memory required: 48K
Retail price: £1.99
Language: Quill
Author: N. Smyth

Atlantis are one of a growing number of new companies who have endeavoured to bring the public what it wants at a price it can afford. If this game is typical of their range all I can say is they are doing a very good job as *Mafia Contract* is not a bad effort and yet can be purchased with only one week's pocket money.

If you have read that marvellous book, *The Godfather*, then you'll know what to expect from this game - a compelling mixture of criminal persuasion and dastardly double-dealing. Like in the famous book you are in the most lucrative blackmail market outside of Chicago, amongst the familiar pattern of intersecting streets and avenues of New York. You find yourself, a hitman for Don Capolla, in a sleazy hotel trying to lie low but ending up in the thick of it. You answer the phone in trepidation since silence is only broken for important news, and in this business that's always bad news. Last

night Capolla's son was assassinated and the gang has got a list of possible traitors down to a tidy number - and one of the names is yours. Don Capolla wants to see you now at Mario's Bar, or else. Leaving your room and descending in the lift to the lobby you notice the first graphics which are very simple but quickly and effectively drawn. The program is friendly and responsive allowing you many diversions from the mainstream of the plot. For example, ring the bell at reception and you meet the drunken manager whereupon GIVE KEY and KILL MANAGER both evoke different responses.

Wandering around the streets, avenues and alleys you soon pick up on how to act streetwise if you are gonna make yourself into a feared and respected hood. Sadly, inevitably as you'll soon discover playing the game, there is one of the most infuriating random killings I've ever met. 'Suddenly you hear the screech of tyres and a black Cadillac pulls up. 3 men jump out and fire continuously at you. The bullets rip into you. Within seconds you are dead.' This passage comes up flashing glaringly at inopportune moments and you soon dread turning into a new location in case the program has vouched your time is up.

Mafia Contract is very much worth the meagre investment of £1.99 and compares

THE KEY TO TIME

Producer: Lumpsoft
Memory required: 48K
Retail price: £5.95
Language: Quill
Author:

The Key To Time is Lumpsoft's first adventure and is all about a time traveller who was all the rage when people used to watch television. The loading screen shows a picture of a police box and funny little robots with a bad case of metallic pimples and tunnel vision compounded by the position of their only eye on the end of a stalk.

Apparently it is a bad time for time travellers what with time storms distorting travel coordinates which might lead anywhere and it proves imperative that someone recovers the object that can dispel the storms for good. At a meeting of the High Council of Time Lords one senior member asked, 'Who can dispel the time storms?' But this was taken as a command by the others and so you, The Doctor, ended up with the job.



On your first attempt at the game it's better to ask for HELP rather than STARTing straight off so you can gather some useful information. 'In this adventure you must guide your earlier persona by sending him messages through this Time Lord telepathic controller, cunningly disguised as a Sinclair Spectrum.' Here you are told of the game's intricacies including a timely list of recommended verbs including a general HELP, a more specific HELP(TIMES-CANNER) and WAIT. The HELP is not as useful as it could be because it only

HAVE AN ADVENTURE THIS CHRISTMAS WITH LEVEL 9



AMSTRAD BBC CBM64 SPECTRUM MEMOTECH NASCOM ATARI

results in a random selection from three or four phrases, one of which reads 'Never eat anything bigger than your head,' a saying reminiscent of the work parodied by Lumpsoft's next program to be released, *Malice in Wonderland*. The other, more specific help command is very useful in that constructions like HELP(DALEK) give encyclopedic information concerning a certain object or creature, eg. cybermen are allergic to gold. I really do like this kind of encyclopedic reference material as it was what we all thought computers were about, indeed what they are good at, until the limitations of micro memory become apparent. In this respect, I can't wait to see what adventure games the QL can produce. The WAIT command begins mimicking *The Hobbit* but soon departs with an amusingly prolonged diversion.

The vocabulary is very friendly with constructions such as GO(TARDIS) and ENTER(CRACK) equally helpful and the plot is similarly responsive; everything can be examined and if you look at the screen you find 'The Tardis materialised. Atmosphere: breathable.' Swearing will bring the wrath of Mary Whitehouse down upon your head leaving you to regenerate into your next personna, perhaps this time the chap who is a trifle absent-minded and plays a pipe.

Time travel is the core of the game and if you find play rela-

tively easy as I did, then you will proceed quite quickly through the five time zones, although you may well use up a few of the Doctor's characters. Moving through the likes of Daleks and Cybermen you arrive at Gallifrey where you enter, presumably, the final stages around the president's office. If the game's tricky moments hinder progress then you may have time to ponder on the difficulty of getting any score higher than 0 or how to travel from one time zone to another in the Tardis, an operation which involves a tricky combination of lever pulling and button pressing.

The Key To Time is a very worthy effort from Lumpsoft combining a friendly response with an interesting plot and amusing interludes. A text-only Quilled game with a familiar theme but very well executed.

COMMENTS

Difficulty: mostly easy
Graphics: none
Presentation: very good
Input facility: verb/noun, pretends to be more complex but other words are ignored
Response: very fast
General rating: good.

Atmosphere	7
Vocabulary	7
Logic	8
Debugging	10
Overall value	7

Eventually it speaks, 'I curse you weakling,' and with those few words it is gone. Mortified, you look to Lan for reassurance. Lan chuckles and says first you must find the demon's name and the nature of the curse. Then in order to banish the demon you must use the great staff of Zaranol and the tooth of a dragon. Finally, and most difficult of all, find the Master's secret room because only there can you create the spell needed. Promising to help if called, Lan disappears.

The challenge of this game does not lie in the small number of locations (45) but in the complexity of interpreting the trail of the various clues available. It is well worth setting off with I for Inventory as you will find the object that gets you out of your first predicament does not lie in or about the table, chair or old chest. As is suggested in the blurb it will pay to call Lan to help when your own attempts come to nought. If you are doing well you should soon be greeted with the 'Arthame... with this safely in your hand, draw a circle where 'er you stand!' And you would be wise to do exactly as instructed. Hence, 'the room shudders, your vision wavers...' and it's by way of magic and not by stealth as such that you escape the confines of the first location. This method of advance is repeated often throughout the adventure, magic used with craft imparted by the books, scrolls, robes

and staffs providing your means of progress and thereby reducing the parts played by lengthy, involved reasoning which is typical of, say, an Artic adventure. Indeed it is difficult to recall any great number of real problems posed throughout the entire adventure; progress is mostly assured by simple exploration and examination of everything about you.

The Staff of Zaranol is easily mapped, has magical problems that are quite easy and creates a good atmosphere as you move around the Master's Castle. The dictionary of recommended verbs and special verbs provided at the very beginning are very useful and this along with the game's fundamental simplicity will introduce a beginner to the delights of adventuring and perhaps show, once again, just what a great program *The Quill* has turned out to be.

COMMENTS

Difficulty: quite easy
Graphics: none
Presentation: location descriptions in capitals and a little difficult to read
Input facility: as all Quill games
General rating: one of C. C. S.'s better games

Atmosphere	6
Vocabulary	6
Logic	7
Debugging	10
Overall value	6

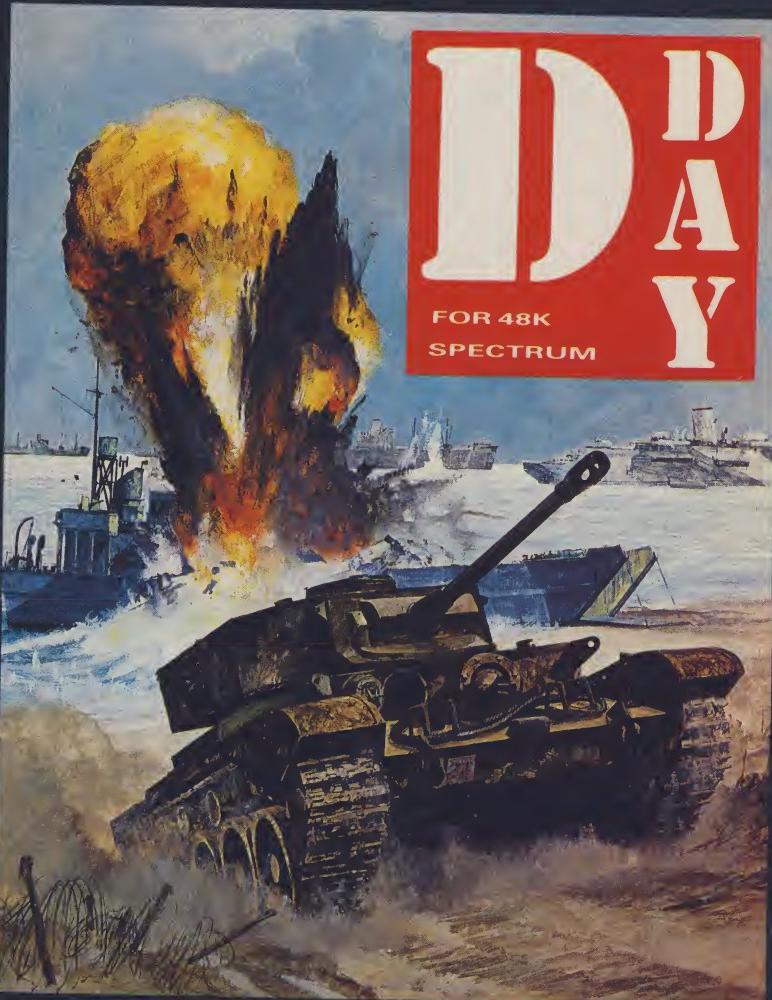
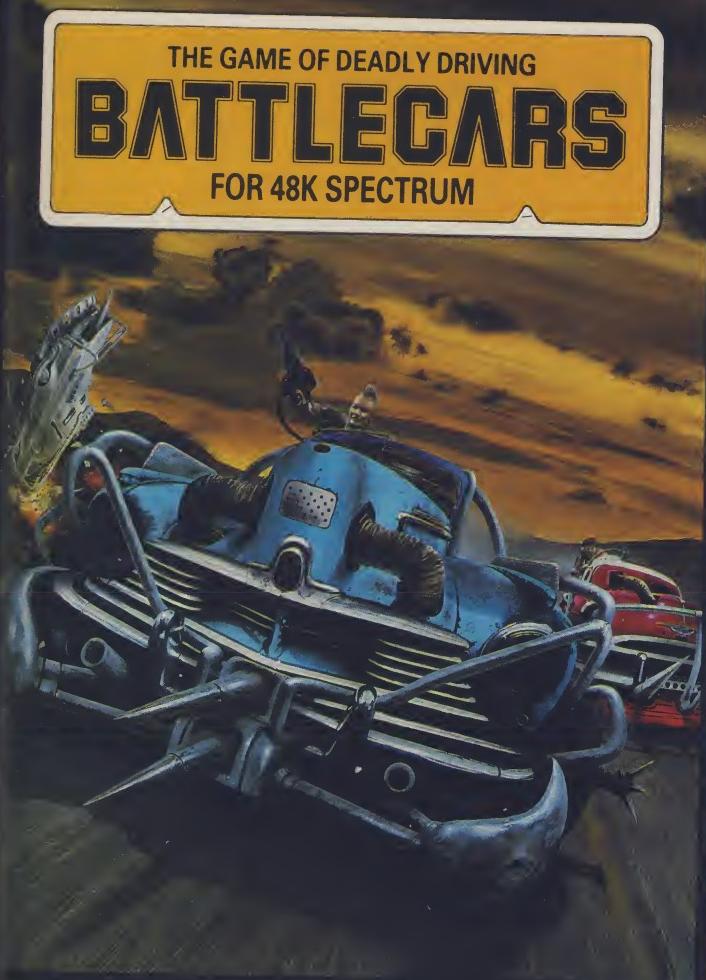
The Staff of Zaranol

Producer: C. C. S.
Memory required: 48K
Retail price: £5.95
Language: Quill
Author: M. J. Gearing

You are the apprentice of Zaranol, the Master Wizard, who stumbles upon one of the old Master's spell books while he is away at an annual general meeting. Calling Lan, your friend and helper, you decide to try one of the spells. Unfortunately all does not go well. During the spell a demon appears and none of your spells of banishment work.



The New Force in Software



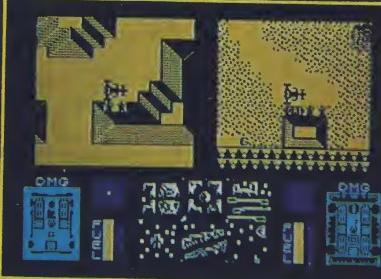
Tower of Despair



GAMES WORKSHOP

GAMES WORKSHOP is the UK's largest fantasy and adventure games company, with ten years experience behind it. Now we're using our expertise to create the best in computer games, and the first three are BATTLECARS, D-DAY, and TOWER OF DESPAIR - each with over 90K of programming!

BATTLECARS is the deadly sport of the future...arm your battlecar with



your chosen weapons, and select your battleground; a gruelling speed circuit or a town centre labyrinth. BATTLECARS is a one or two player game of skill, nerve and cunning.

D-DAY is a superb graphic wargame based on the Normandy landings of 1944. Two players take the Allied and

German sides, battling through four separate scenarios. D-DAY offers an enduring tactical challenge to players tired of simple arcade action.

In TOWER OF DESPAIR, Games Workshop has used its ten years of experience in role-playing games to create an outstanding adventure. It includes two entire 48K programs, and a guide containing a history, map, and illustrated clues.

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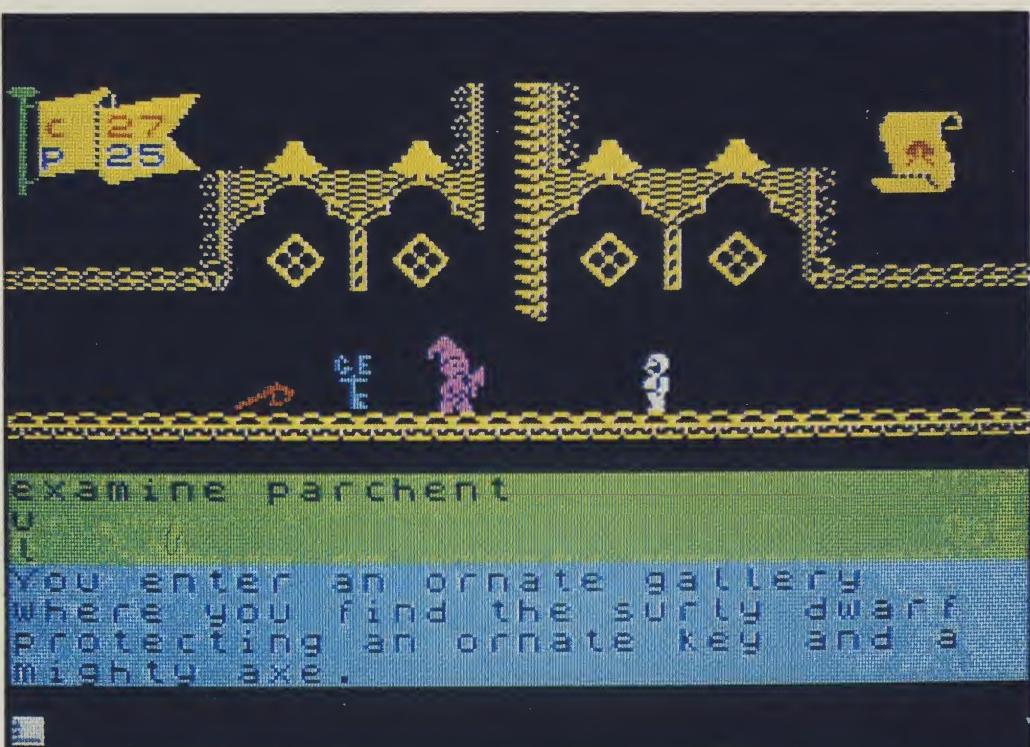
A Crash Smash

THE RUNES OF ZENDOS

Producer: Dorcas Software
Memory required: 48K
Retail price: £7.95
Language: machine code
Author: Chris Dorell

Dorcasia was a pleasant fertile land until the wizard Zendos cast the spell of darkness, plunging the country into perpetual gloom, forcing all the citizens of the tiny principality to pledge allegiance to him. A hero must take on the twelve different adventures and find and destroy the twelve runic hour glasses hidden deep within his magical castle, releasing the months and returning Dorcasia to the natural forces of the seasons. To protect the hour glasses and keep their runic inscriptions secret, Zendos has placed them in twelve separate rooms, each linked to an exterior gateway by a devious route. Each adventure has unique spells and problems to ensure a new challenge is provided on each occasion. The game features full animation, sentence input, sound effects and save game facilities to tape and microdrive.

When the game loads you are at the start of adventure one. At any time you can switch to the start of a different adventure by entering, for example, 'adventure eight'. Status (or ?) gives information regarding the adventure you are in; eg. Adventure 1, Strength 25, Provisions 25, Luck 10, Performance 80 (how much of the adventure you have completed). Further information regarding what you are carrying, the spells you know and what you are wearing is also detailed. You can wear one item on your head and one on your body; if you remove something you will then be carrying it. You begin each



adventure with a supply of provisions eaten in quantities from 1 - 12 to increase your strength, eg. EAT THREE Items of food along the way replenishes strength depleted during fighting and running. Vocabulary is surprisingly particular as you must type in the exact letters to make up the required words with only a few stock abbreviations for left (l), right (r), up (u), down (d), passage (p) and quickly (q). However, editing makes full use of the Spectrum cursor movement and delete functions which greatly facilitates entry. ENTER repeats the last command even after starting to type something else if this is first deleted. Input can be, and often must be, quite lengthy and involved, eg. ATTACK THE GUARD WITH THE MIGHTY AXE and UNLOCK THE DOOR WITH THE GOLDEN KEY. The program will accept all words it has displayed.

Whenever you meet a creature its strength and yours are displayed in a pennant at the top left of the screen. If a creature is very strong you will need more than your bare hands. Fighting is seldom the only option; often befriending a creature or casting an appropriate spell marks the way forward. To cast a spell you must have found it first and which therefore will appear in your knowledge list in the current adventure. Using

charms and lucky items may improve your luck.

The Runes of Zendos is a very graphically entertaining adventure with smooth, scrolling animation sending your character left and right through passageways, up and down steps of ladders and striking blows in battle with the various zombies, skeletons, werewolves and all manner of exotic assailants. Much of the language is atypical of the arcade-adventure scene with l and r keys chosen for movement and TAKE with no GET option. The problems are logical, more so than in many text adventures, and the game is certain to take some time to complete as three hours were needed for the first of twelve sections. Although the game stands up as an adventure in its own right it is the superb animation which will be the

more immediate attraction of what is a very fine game.

COMMENTS

Difficulty: quite easy
Graphics: scrolling graphics with character animation
Presentation: good
Input facility: allows sentences. Vocabulary small and a little unorthodox
Response: reasonable, scrolling graphics appear a bit slow when in a hurry
General rating: good, I liked it a lot.

Atmosphere	8
Vocabulary	5
Logic	8
Debugging	10
Overall value	8



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The Sorcerer of Claymorgue Castle

Producer: Adventure International
Memory required: 48
Retail price: £9.95
Language: machine code
Author: Scott Adams

Sorcerer of Claymorgue Castle is adventure 13 by Scott Adams, marketed by Adventure International. It follows in the footsteps of *The Hulk* featuring superlative graphics at every scene.

Solon the Master Wizard and owner of the Secret Coat long ago lost the 13 stars of Power. The evil Vileroth, believing the stars to be the only source of Solon's power, acquired these magical prizes when in fact it was the cloak that controlled the stars. Unable to master the magical stars, Vileroth's strength slipped away leaving him with no option but to conceal the Stars of Power within Claymorgue Castle so no one else could possess them. You are Beanwick, Solon's faithful young apprentice, and your task is to retrieve the 13 stars armed with a few spells and with a few more to be found in the castle, but the problem is, how do you use them?

The first location is a super graphic showing fine detail of the turrets and battlements comprising a compact, but nonetheless imposing, fortress. If I were to describe a picture of a moat, surrounding a castle with a drawbridge, being a highly skilled and cynical explorer, you will immediately imagine a tidy graphic of a drawbridge which is, of course, raised. If you should ever meet an adventure where a drawbridge is not raised, knowing the deviousness of many adventure authors, I would tread warily. This first problem is tackled, like so many in the adventure, by making use of the magic bestowed upon you from the start or to be found in the various nooks and crannies along the way. Getting the drawbridge down (the noun needs the first five letters DRAWB), you look up to



see it down in the picture - a nice touch. Moving east onto the drawbridge you are met with a curious sight where you are contemplating your feet upon the bridge overlooking the moat, but it would be wise to resist the temptation to take the plunge as it may just harbour one of those nasty sleeping moat monsters. On the east side of the drawbridge you see a lever set in the western wall and you'd need to be half-baked or inappropriately impulsive to fail to appreciate the consequences of pulling it. Better to move further east into the interior of the castle and a courtyard with a highly decorative fountain set at its middle. Enter the magic fountain now and it could signal your first meeting with the horrific and very graphic depiction of a sneering skull which makes you shudder the first time you see it. If instead you content yourself for the time being with collecting the goodies here, you'll notice that the program follows what is fast becoming a trend. The fact that you have gained an object is not acknowledged as such. The only indication that you have indeed picked up an object is that object's removal



I am in a field. I see the castle.

Moat Castle Raised drawbridge

Exits: NORTH, SOUTH, WEST

Adventure 1.0 by Scott Adams dedicated to Rose Adams, Scott's relative and Richard Adams' brother, and to critique Beta tester Lester Hollarth. Artwork by Brian Teller
---TELL ME WHAT TO DO

from the list of visible items, this coupled with the knowledge that had you failed to pick up an object a report would draw your attention to your lack of success.

By this stage you will have already worked out the use of one spell (at the drawbridge), now let's look at another two. Well, Lycanthorpe in psychiatry is a person who believes that he is a wolf, so what use the Lycanthorpe spell is I'll leave you to decide. As for the Yoho spell it sounds like yoyo and yo-yos spring back to your hand when spun. Indeed, the Yoho spell takes you back to the first location; unfortunately, if you were dying on using it, you'll still die at or near the first scene. Also, surprisingly, you are told the Yoho spell works on the second occasion of its use, but on the second attempt nothing seems to happen.

Further east you meet one of those situations which you just know will become a classic since it is both devious and difficult. In the ballroom is a giant chandelier secured to a wall by way of a rope. You discover the deviousness of the problem if you attempt the obvious, leading to an annoyingly obvious conclusion. The assumption is you'd be stupid enough to stand under the chandelier while untying it! Should you have had the foresight to fetch the crate from the kitchen you would be spared, presumably because the chandelier has less of a distance to fall before crashing onto your head. Incidentally, GET OFF will not see you off the chandelier, but GO BALLROOM will, rather strange when the former does work when getting off the crate.

I wonder if this game has enough to keep me interested until the seventh or eighth star, never mind the thirteenth, since clearly so much effort for this adventure has been invested in producing the ultimate graphics. The vocabulary is friendly, though restricted to verb/noun couplings, with constructions such as GO (FOUNTAIN) and ENTER (COURTYARD) both accepted, and it is reasonably easy to get around until the problems become more pedantic and intractable.

Sorcerer of Claymorgue Castle is an offering from a highly regarded force in adventure publishing, Scott Adam's Adventure International. Commercially it is as slick, polished and viably marketed as only American software can be. Superb graphics and a racy response give the game the edge. However, you can't help but get the feeling that beneath the razzmatazz the plot is a shade dull and uninspiring. As was said during a hamburger commercial and the US Presidential Election, where's the meat?

COMMENTS

Difficulty: very difficult

Graphics: excellent and very fast

Presentation: well laid out

Input facility: verb/noun

Response: very fast

General rating: good

Atmosphere	6
Vocabulary	8
Logic	7
Debugging	10
Overall value	7

EUREKA!

Producer: Domark
Memory required: 48K
Retail price: £14.95
Language: machine code
Author: Ian Livingstone

Eureka! is a game that follows in the footsteps of some local authorities, large American States and daily newspapers in bringing the lottery into the lives of the many so that they may have a crack at that all-too-elusive prize. The unlikelihood of winning the prize is made up in part by its sheer size. In this case Domark have judged £25,000 to be an ample sum to tempt enough punters to pay the game's way. If no one wins the prize by 31st December 1985, Domark will share out the prize equally. One can't help thinking up an analogy with British Telecom Shares. And here lies the rub; I can't really judge the issue because it all depends upon the view you take on a game where the intellectual unravelling of a string of riddles and puzzles may gain you a considerable sum of money, much like a Financial Editor of a newspaper can only draw your attention to shares that may prove a sound investment - whether they are a sound investment depends on how the market fares.

The game comes in a large box containing five adventures on the one tape and a thin, but lavish, booklet. Of the five adventures, the first four can be played in any order, the fifth only on giving the correct answer to a series of questions on the previous four. Each of the adventures contains clues to the mystery code. The answers to the riddles in the accompanying booklet lie within the programs, and you decipher the code into a UK telephone number using chapter six in the booklet. You ring the number and if you can correctly answer the question by the closing date you win the prize. A hotline will tell you whether the prize has gone already.

The Temporal Talisman, an ancient artifact found on the Moon by the Apollo XVII mission, shattered into many pieces when subjected to the intense beams of the SHIVA Fusion Project lasers. A Dr. Majid has convinced NASA that he knows where the mis-



sing pieces are to be found. Each piece was catapulted onto Time and has been traced thus:- one in Prehistoric Europe, Roman Italy, Arthurian Britain, Wartime Germany and the Modern Caribbean. An experimental device, The Chonetrans, will send you back in time to retrieve the pieces.

A short arcade game precedes each adventure and must be attempted as it helps to increase your vigour in the adventure if you score over 25,000 points (a magic number for this game)! Every 500 points beyond this gives you one extra vigour point up to a maximum of 100 points. An automatic vigour level of 50 can be taken over to the adventure but only on finishing the arcade game. The object of the arcade game is to collect the flashing objects and dropping them by pressing the fire button. Each time this is done a flashing exit sign appears on the screen. Theoretically you can choose to leave or stay on to score more points but in practice, due to the sluggish response, pressing the fire button just a fraction too long sees you stay for another round whether you wanted to or not. Considering how mind-stupefyingly boring this game is this can make you see red. You begin to think that you really have to work for the £25,000 - no playing around here.

On to the adventure itself. Since I could load Arthurian Britain straight away I started with this followed by Roman Italy. I say 'could load' because if you should find any difficulty,

like myself, in loading any part you could well be in trouble. All five games are contained on the one cassette and the search, rewind and fast forward when trying to locate the start of a section may result in a damaged tape. Domark may worry at the possibility of many tapes being returned.

There is no save facility underlining the fact that this product sees itself as little more than a competition with none of the usual courtesies afforded adventurers. This omission is compounded by the irritation involved in having to start at the beginning when killed whereupon a 35 second wait is necessary before recommencing. The Roman Italy section is made difficult by the use of Latin throughout but in another part one problem is a giveaway to Star Trek fans (can you believe it - I'm still watching the repeats of the...) A hollow log, flint, diamonds, sulphur, saltpetre and coal are indelibly linked in the minds of the space adventure's fans.

Eureka! offers a prize of £25,000 to the person tenacious and skilled enough to solve this puzzle. The game does feature graphics but these vary considerably in quality from the quite good, through passable to downright expedient, eg.

using mirror images to complete the picture. If you never see any part of the vast sum on offer I think it unlikely you would return to the game for its own sake.

COMMENTS

Difficulty: very difficult
Graphics: on every location but are rather poor
Presentation: background changes colour abruptly and exits and objects are not usually given
Input facility: good
Response: reasonably fast
Special features: arcade game at start, real time, 5 separate adventures, £25,000 prize
General rating: should be good value but has several annoying features like lack of SAVE facility.

Atmosphere	7
Vocabulary	7
Logic	7
Debugging	10
Overall value	7

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Each glass has a RUNCIC inscription around its base which you must read and understand. Only saying these words will lift that part of the spell. To protect the hour glasses Zendos has placed them in 12 separate rooms in his castle, each room linked to a different exterior gateway by a devious route.

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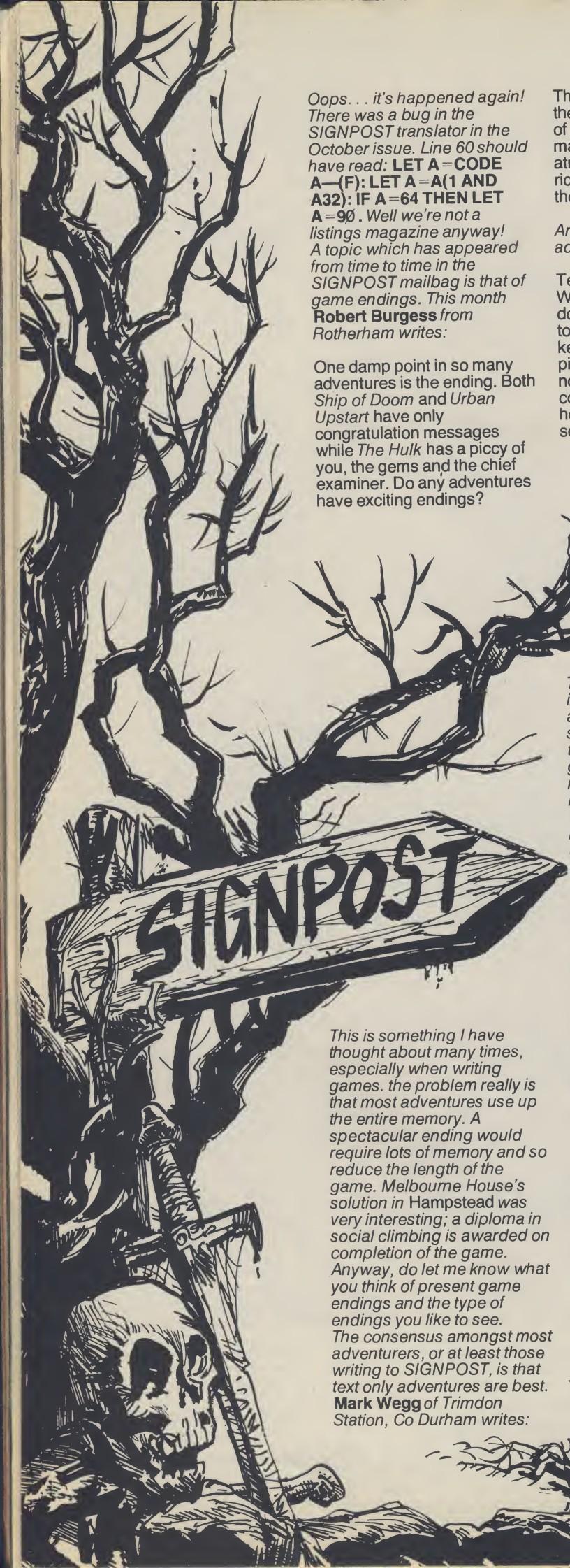
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Oops... it's happened again! There was a bug in the SIGNPOST translator in the October issue. Line 60 should have read: LET A = CODE A—(F); LET A = A(1 AND A32); IF A = 64 THEN LET A = 90. Well we're not a listings magazine anyway! A topic which has appeared from time to time in the SIGNPOST mailbag is that of game endings. This month Robert Burgess from Rotherham writes:

One damp point in so many adventures is the ending. Both *Ship of Doom* and *Urban Upstart* have only congratulation messages while *The Hulk* has a piccy of you, the gems and the chief examiner. Do any adventures have exciting endings?

Robert Burgess from Rotherham writes:

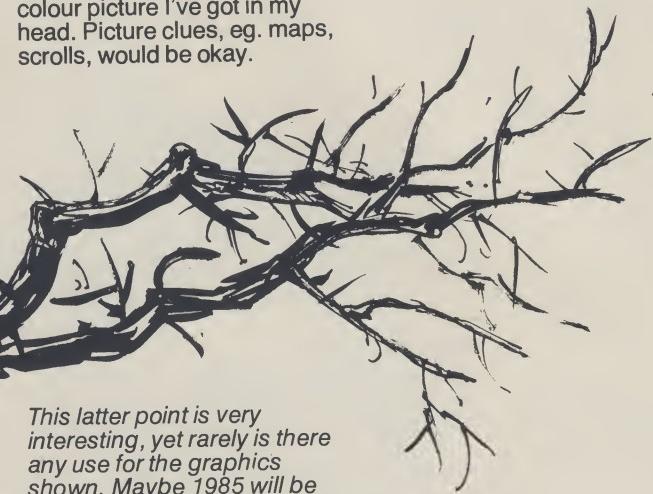
The use of graphics can limit the difficulty and presentation of the game, although some may say it adds to the atmosphere of the game, richer descriptions enhance the game in my opinion.

An unnamed Birmingham adventurer writes:

Text adventures are best! When graphics are available I don't use them. Occasionally to my shock I press the enter key by mistake and a 'cartoon' picture appears which bears no relationship to the 3D colour picture I've got in my head. Picture clues, eg. maps, scrolls, would be okay.

Could you please help me with Espionage Island? What does the woman do? What do you do with the boat? What about the crevasse? And the dark corner?

Maybe the native woman wants something; try feeling around in the dark. The crevasse is to be spanned and its an easy place to stick! As for the boat, just try entering the correct input. Alex Marsh is unable to find Krank's Hall in Valhalla. Go



This latter point is very interesting, yet rarely is there any use for the graphics shown. Maybe 1985 will be the year when graphics are given a purpose like showing maps and scrolls rather than being purely for decoration. Alex Marsh from Essex has his own ideas of what makes a good adventure:

Location descriptions should be about 7 to 8 lines long, except in mazes etc. They should be more than just a collection of clichés (the narrow winding passage, the old brass lamp etc.) and all nouns in the description should be recognised by the interpreter. In graphic adventures the pictures should be worth seeing and displayed quickly as in *The Hulk*.

I totally agree, many graphics are poorly drawn and a total waste of memory. Now into some adventure problems. Arctic adventures are always popular. Christopher Strand is having difficulty extinguishing the fire in Inca Curse. Try ZPV OFFE CMBOLFU. LJMM GJSF. P. Von Vliet from Essex writes:



north from the plain in Midgard, but first Boldir must be present. Kevin Roberts from Stockport writes:

I am stuck in the second adventure of the Ket Trilogy (Temple of Vran). I cannot find the stepladders. Also, what is the rope that is hanging over the cliff tied to?

Well Kevin, I'm afraid the stepladders are at the bottom of the cliff and as for the rope, it's not tied to anything, that's the problem. This should give you food for thought! In the same adventure David Laity of Cornwall is unable to get any further than the four coloured rooms. This is a real gem of a problem. SFBE TJHOQPTU GJSTU. ESPQ HFNT JO SPPNT PG TBNF DPMPVS.

This is something I have thought about many times, especially when writing games. The problem really is that most adventures use up the entire memory. A spectacular ending would require lots of memory and so reduce the length of the game. Melbourne House's solution in Hampstead was very interesting; a diploma in social climbing is awarded on completion of the game. Anyway, do let me know what you think of present game endings and the type of endings you like to see. The consensus amongst most adventurers, or at least those writing to SIGNPOST, is that text only adventures are best. Mark Wegg of Trimdon Station, Co Durham writes:

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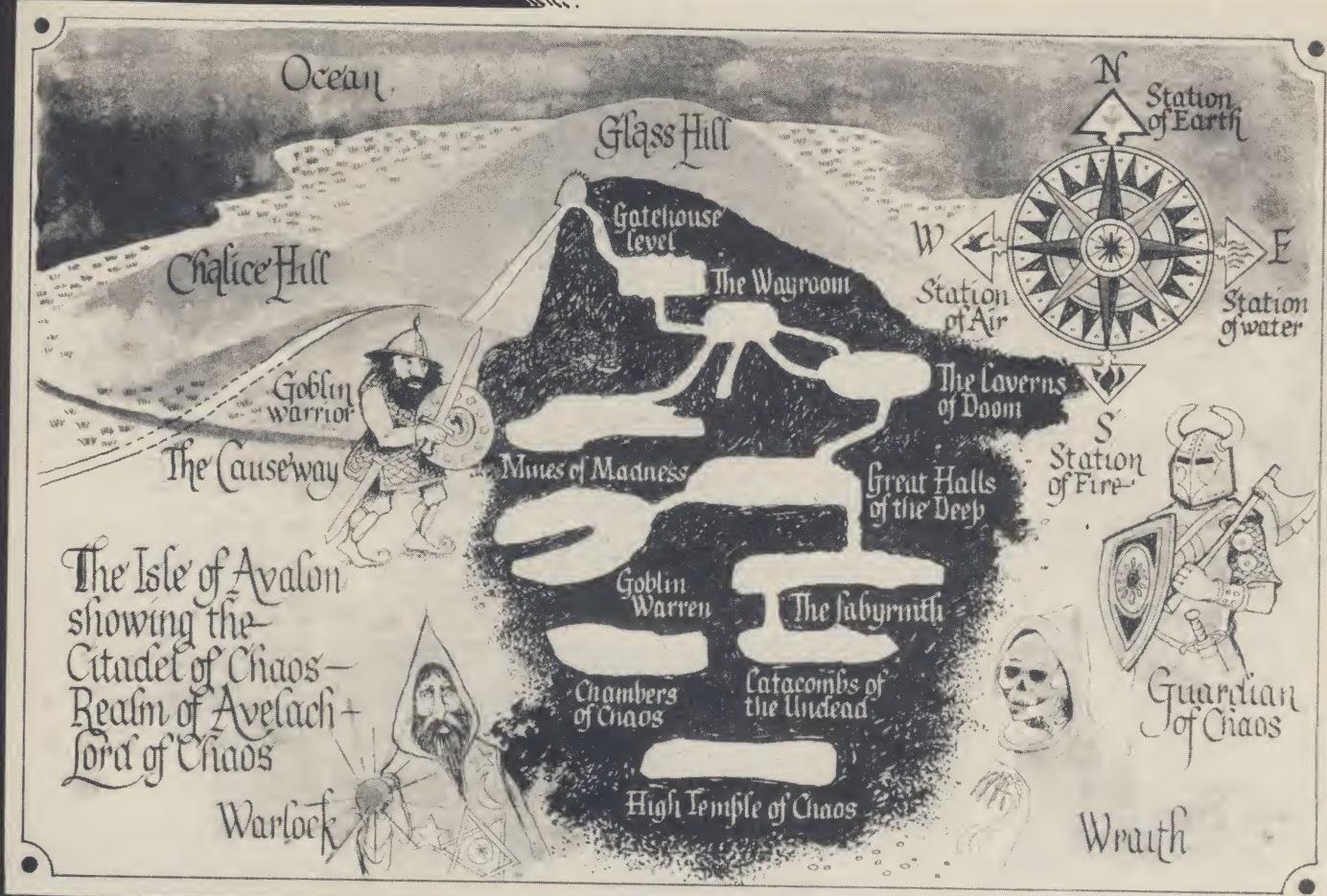
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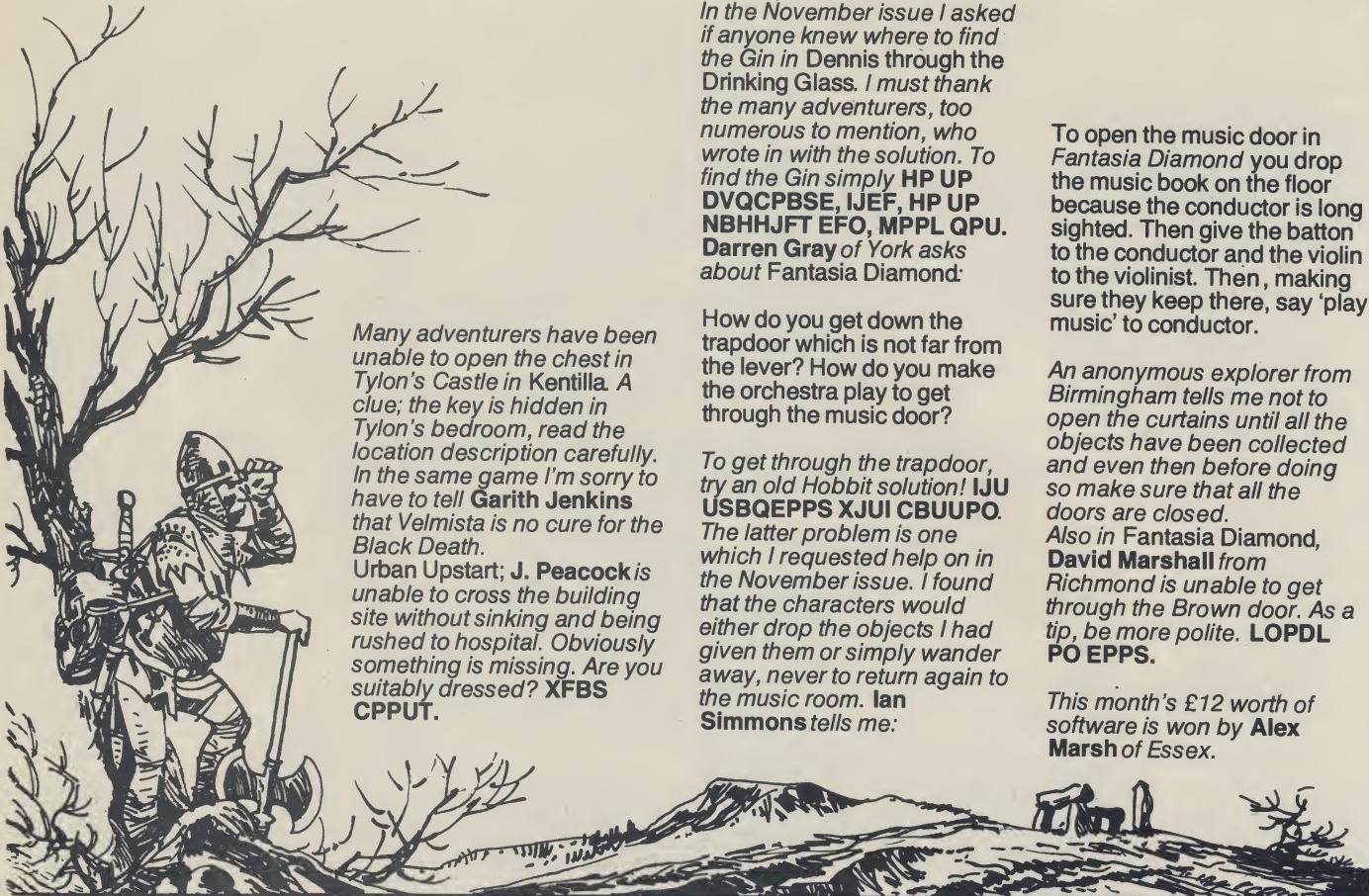
Warlock



What you have to do is send in an illustrated map from *Avalon* detailing one particular level of the game. It can be any level you like, the choice is yours. This competition is not concerned with playing ability — the judges will be looking for good and original presentation as well as accuracy of locations, detail of objects, weapons and hazards and anything else you can think of which will enhance your entry. Don't forget the sense of period and mystery that exists in the game — it's all part of the atmosphere!

Because the winning entry will be specially mounted by Hewson Consultants, it is important that your entry does not exceed dimensions of 60cm x 80cm, although it can be smaller if you like. CRASH will pick the overall winner and the fifty runners-up.

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Many adventurers have been unable to open the chest in Tylon's Castle in Kentilla. A clue; the key is hidden in Tylon's bedroom, read the location description carefully. In the same game I'm sorry to have to tell **Garith Jenkins** that Velmista is no cure for the Black Death. Urban Upstart; **J. Peacock** is unable to cross the building site without sinking and being rushed to hospital. Obviously something is missing. Are you suitably dressed? **XFBSCPUT.**

In the November issue I asked if anyone knew where to find the Gin in Dennis through the Drinking Glass. I must thank the many adventurers, too numerous to mention, who wrote in with the solution. To find the Gin simply **HP UP DVQCPBSE, IJEF, HP UP NBHHJFT EFO, MPPL QPU.** Darren Gray of York asks about Fantasia Diamond:

How do you get down the trapdoor which is not far from the lever? How do you make the orchestra play to get through the music door?

To get through the trapdoor, try an old Hobbit solution! **IJU USBQEPPS XJUI CBUUPO.** The latter problem is one which I requested help on in the November issue. I found that the characters would either drop the objects I had given them or simply wander away, never to return again to the music room. Ian Simmons tells me:

To open the music door in *Fantasia Diamond* you drop the music book on the floor because the conductor is long sighted. Then give the baton to the conductor and the violin to the violinist. Then, making sure they keep there, say 'play music' to conductor.

An anonymous explorer from Birmingham tells me not to open the curtains until all the objects have been collected and even then before doing so make sure that all the doors are closed. Also in *Fantasia Diamond*, **David Marshall** from Richmond is unable to get through the Brown door. As a tip, be more polite. **LOPDL PO EPPS.**

This month's £12 worth of software is won by **Alex Marsh** of Essex.

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MOON LIGHTER

Producer: Software Super Savers

Memory required: 48K

Retail price: £2.99

Language: machine code

Author: R. Mac Farquhar

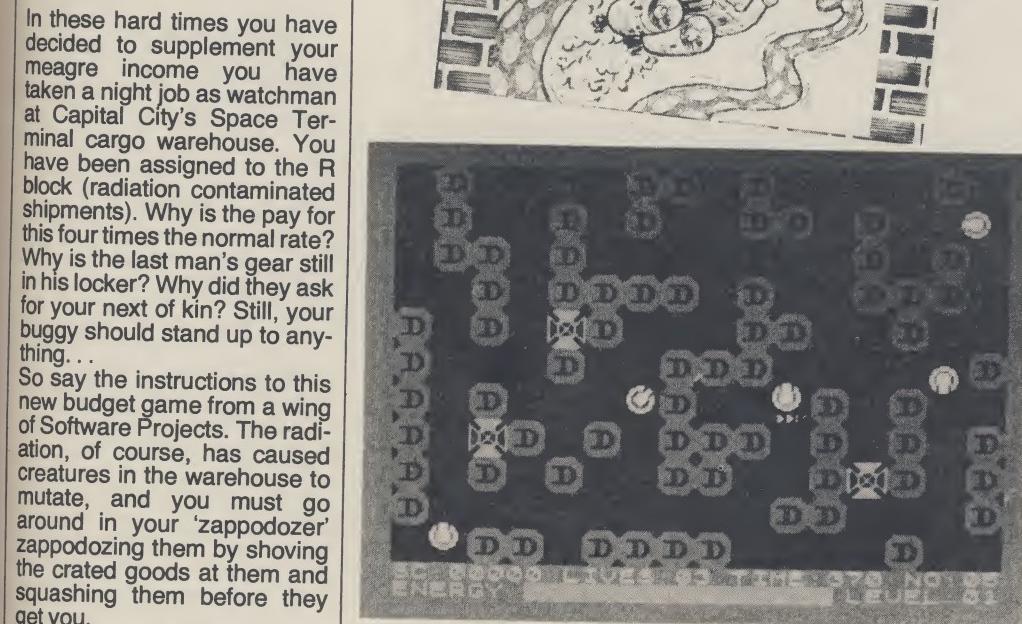
In these hard times you have decided to supplement your meagre income you have taken a night job as watchman at Capital City's Space Terminal cargo warehouse. You have been assigned to the R block (radiation contaminated shipments). Why is the pay for this four times the normal rate? Why is the last man's gear still in his locker? Why did they ask for your next of kin? Still, your buggy should stand up to anything...

So say the instructions to this new budget game from a wing of Software Projects. The radiation, of course, has caused creatures in the warehouse to mutate, and you must go around in your 'zappodozer' zappodozing them by shoving the crated goods at them and squashing them before they get you.

From this brief description it is easy to see that what we have here is really a 'Pengo' type game where crates replace ice blocks. Each level is enlivened by the fact that the goods are changed. As each screen starts one of the crates will be flashing and a creature will emerge from it after a second or two. More crates flash as more creatures come to the attack, becoming more intelligent as they go along. Crates may be pushed along or melted (except the yellow ones which may be pushed only). At the base of the screen is an energy bar — there is also a time counter which affects the bonus score.

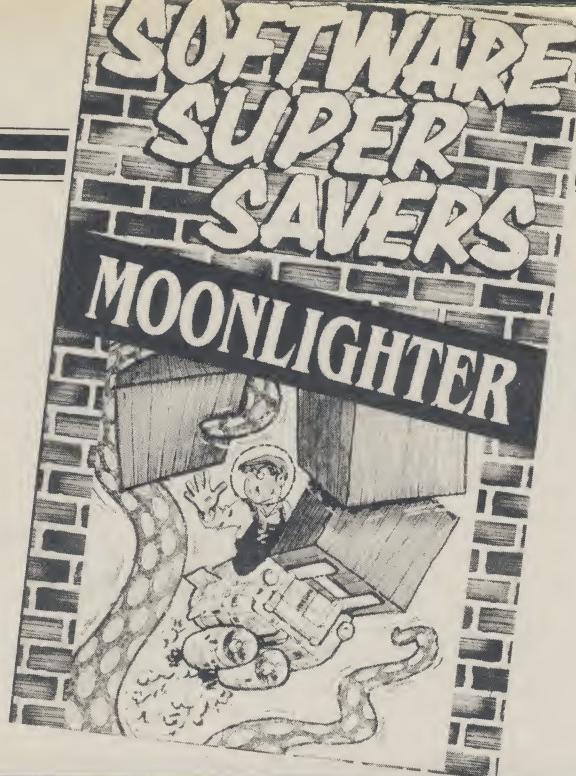
CRITICISM

- 'I didn't think Moonlighter was very playable because the dozer is too sluggish while the nasties are quick. Also the fact that there are quite a few keys does not help very much. The most exciting bit of the game is the 'zippy' noise that occurs when all the lives are lost!'



- 'Another attempt at an ice age game - 'Pengo'. The screen is laid out on quite a large grid of 'ice' - but in this game crates of 'Dunlot' tennis balls. And it is this load of balls that keep on hanging about trying to get you! The mutated balls seem to be very eager to try and squash you and move very fast in comparison to 'you'. I found on the very first screen that killing off five balls was a nightmare - on the second screen with ten balls after me it seemed impossible. Colour has been used very well in this game, graphics are clear detailed and move well. There are many tunes, all quite jolly and pleasing. At £2.99 this does represent good value for this type of game.'

- 'The graphics in Moonlighter are smooth and quite fast, and although they are actually quite detailed, they don't really appear to be so, which is a bit odd. It's a fairly standard 'Pengo' game and a pretty hard one — perhaps too hard. Good value though for the price. Nothing amazing — just reasonable as a game.'



COMMENTS

Control keys: Q/A up/down, O/P left/right, M to fire, N to push

Joystick: Kempston

Keyboard play: responsive, but melt and push are the wrong way round for comfortable play

Use of colour: above average

Graphics: only average

Sound: good tunes, some nice spot effects

Skill levels: progressive (more jumps, leaps and bounds!)

Lives: 5

Screens:

Special features:

General rating: average game, which represents reasonable value for money.

Use of computer 48%

Graphics 52%

Playability 47%

Getting started 50%

Addictive qualities 36%

Value for money 54%

Overall 48%

FREDS FAN FACTORY

Producer: Software Super Savers

Memory required: 48K

Retail price: £2.99

Language: machine code

Author: Pat Norris

Another in the new Software Projects' budget range - Software Super Savers, Fred's Fan Factory is an interesting idea. It's a pity nothing could be said about playing the game either on the inlay or on the screen, because although the immediate requirement is pretty obvious, the long term objectives are not.

Fred runs left and right along the bottom of the screen, while above him there are four 'corridors' with set holes leading upwards from one to the other. In the roof of the corridors there are sharp green spikes at intervals, and at opposed ends of each corridor there are large electric style fans, magenta fans on the first level, green on the second, blue on the third and yellow on the top. On Fred's level there are eight handles set into the roof in four colours, each handle corresponding to one of the fans. By dashing from one handle to the other an activating it, Fred can make the appropriate fans work.

From the lowest level at the left, a balloon man appears, wading down the corridor until he reaches the first upward hole. The balloon then rises and will burst on a spike unless Fred can reach the right fan and waft the balloon safely on down the



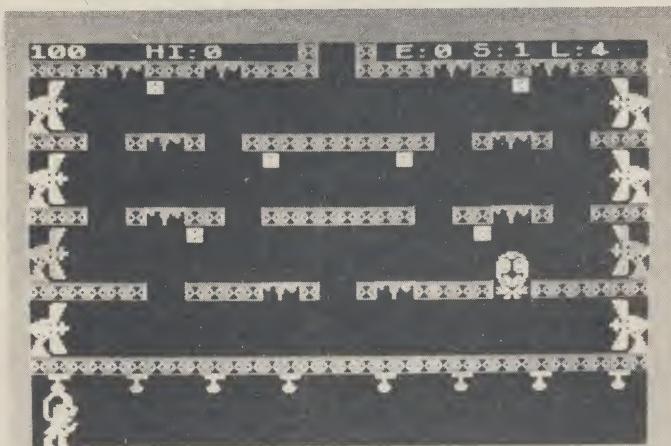


corridor. By judicious use of alternating fans, it is possible to make the balloons waft from left to right, picking up yellow blocks set on the roofs here and there. As soon as the first balloon is under way another will emerge from the right and so on. The object is to collect all the yellow blocks before running out of balloon men.

CRITICISM

- 'Fred's Fan Factory is a rather original game to say the least, the graphics are good enough to match the game. This game is challenging and strategic in an "arcade" sort of way. I enjoyed it! I also found it a little difficult because the type of skill required is an ability to concentrate on several things at once, rather like juggling. No easy task!'

- 'The object is to guide balloons through a factory using the fans on either side. At first the game is confusing because you are not told what to do.'



The keys are awkwardly placed and the game depends heavily on your having a colour TV.'

• 'Fred's Fan Factory would have been a really good game if it had been a bit more playable. The idea is novel but there are two serious failings; the first is that the level of difficulty

has been twisted up just that bit too much to make the game enjoyable to play, and the second is that it is very hard to position Fred properly to activate a fan switch. This just makes the level of frustration too high to continue being bothered with the game. A pity, because the idea is good and the sort of skill needed is interesting.'

COMMENTS

Control keys: Q/P left/right, M for fan control
Joystick: Kempston
Keyboard play: with only three keys it would have been better to have them positioned closer together
Use of colour: good
Graphics: quite good although pretty simple
Sound: only the balloon bursting effect
Skill levels:
Lives: 6 balloon men
Screens:
Special features:
General rating: mixed feelings from reviewers ranging from waste of money to above average.

Use of computer	58%
Graphics	48%
Playability	43%
Getting started	25%
Addictive qualities	38%
Value for money	51%
Overall	44%

RACING PREDICTIONS

Producer: Buffer Micro
Memory required: 48K
Retail price: £9.95

Chris 'The Tipster' Passey takes a look at a program to help you win lots of money on the gee-gees...

I've just about lost count of the number of times that people have asked if my computer will 'pick horses'. Well here's a program that claims to do just that.

The program makes its predictions from SPEED FIGURE DATA (SFD), published by *Sporting Life*. Basically, this is what the required inputs are: First enter the name of the course and the going, ie. Soft, Hard etc. The courses are graded which is significant as different grades attract different classes of horse. Next, the distance in furlongs is entered. After this each horse running is entered with its age, weight and SFD. The Speed Figure Data is information about the horse's best performance in the current season, taking into account the course, ground conditions and distance behind the winner. An

example of SFD is shown below:

Horse's name
Crash Smash

speed figure
97

course (eg. Ludlow)
LUD

distance
25f

going, eg. Good
G

date (not input)
Dec 10

And before anyone says anything - yes, there is a race course at Ludlow as all serious punters know!

After all the information has been entered, the program sorts the list. It then produces a list, with numbers alongside the entries representing a horse's chance of winning. Typical values would be between 1 and 300. I tried quite a few races, but I could only use the 'flat' program because at the time of reviewing, the National Hunt (jumps) season was not sufficiently

established to give any reasonably reliable SFD.

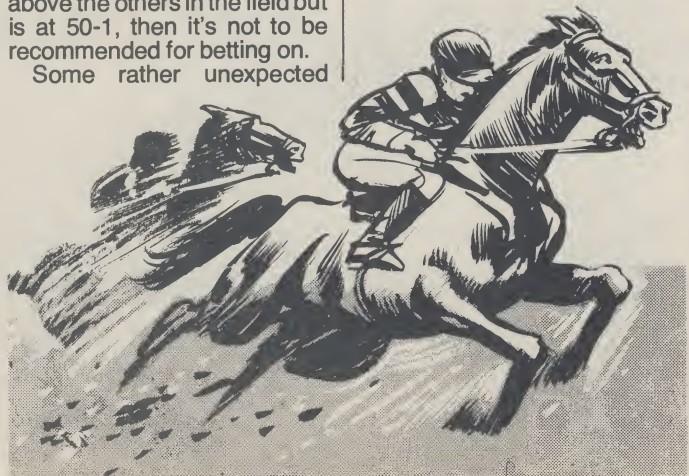
I personally feel that speed in general has a greater bearing on the flat because compared to NH, it is more of a sprint. NH, which is over longer distances, may have any sort of pace until the last few furlongs.

Enough digressions, back to the results. On average I found that when correctly interpreted, the results were rather useful. Interpretation is required because the program does not take into account recent positions (form) or the betting. A horse with good SFD may have gone off the boil, and if a horse gets, say, 25 points above the others in the field but is at 50-1, then it's not to be recommended for betting on.

Some rather unexpected

outcomes and ratings lead me to doubt the program's abilities, but on average over quite a few races the horses in the highest finishing positions did have significantly higher ratings given.

The system has its limitations, but if used sensibly as an aid to a decision, is useful. Consider the ratings as another factor when picking a horse. This program (or any other) is not able to pick winners like magic. And it's worth remembering that horse racing is hardly logical. Accept *Racing Predictions* for what it is, with its limitations, and you may keep your shirt on!





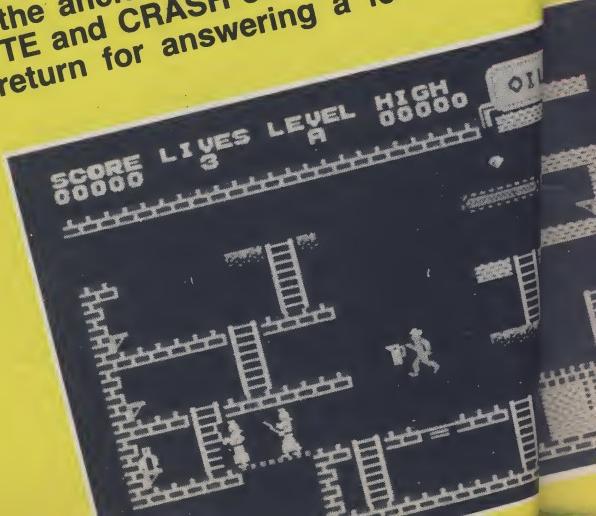
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Our last BUG-BYTE competition for Rapscallion, proved to be one of the most popular we have ever run and no doubt its follow up will exceed expectations as well. Turmoil is a classic platform game with some very novel innovations which make it fun to play. As its title indicates, a frenzied pace is set up as you collect oil and make it slipping over in the stuff! Oil is the central feature along with the lively, leaping protagonists who pursue you with vengeance on their minds. Turmoil makes a startling contrast to BUG-BYTE's other co-release, Kung-Fu, where the violence is contained within the rigid and formalised structure of the ancient, oriental martial art. Both Kung-Fu and Turmoil retail at £6.95, but BUG-BYTE and CRASH offer martial arts fans a chance to win a copy of Turmoil absolutely free in return for answering a few simple questions!

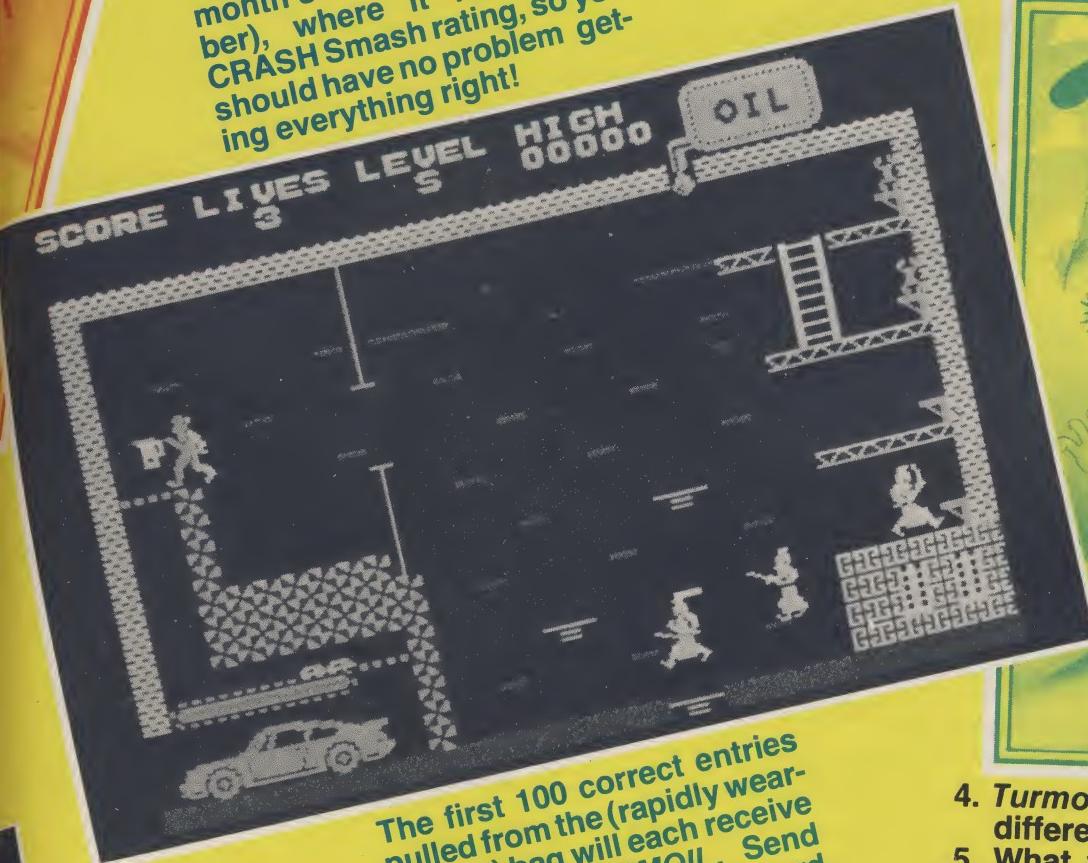


TURMOIL IN THE GARAGE!!

A CHANCE TO WIN THE HIT GAME FROM BUG-BYTE!!

A CRASH Smash of last month, BUG-BYTE's *Turmoil* is an unusual game of platform jumping skill with loads of screens. Here's a chance for 100 lucky readers to win the game!

To have a chance of winning a copy of BUG-BYTE's *Turmoil*, all you have to do is answer the questions below. We reviewed *Turmoil* in last month's CRASH (November), where it received a CRASH Smash rating, so you should have no problem getting everything right!



The first 100 correct entries pulled from the (rapidly wearing out) bag will each receive a copy of TURMOIL. Send your answers on a postcard please (or the outside of a sealed envelope) to: TURMOIL COMPETITION, CRASH MAGAZINE, PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB to arrive no later than the first post on January 18.

THE QUESTIONS

1. How many screens are there in *Turmoil*?
2. Who do 'you' play in *Turmoil*?
3. What are the 'nasties'?



4. *Turmoil* has 'a very novel difference.' What is it?
5. What vehicle do you start off with in the garage?
6. Count up how many times the word 'Turmoil' appears in the text of last month's review (ignore the main top heading and any captions). Multiply the result by the Overall rating and divide the answer by the retail price. Give your answer to the nearest two decimal places.

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VALLEY OF SLIME

UGH! Here it is, as promised, one wall to wall VALLEY OF SLIME, a gooey squelch full of honesty is the true measure of a good man, and all who dare enter here had better be telling the truth according to Lloyd Mangram or you'll be banished hence and left to wander the desolate plains with only a PCG and C&VG Hall of Fame for company. Anyway, enough of the cassette blurb and on with the action...

Eddie Kidd Jump Chaqlleenge 14
cars cleared, score 54
Jonathon Worely & Kevin Wells, Havant, Hants

Sabre Wulf 1, 106, 745 at 97,
done in 3 hours 18 minutes.
Andrew Dunbar, Buckley,
Clwyd, N. Wales

That is a pretty amazing hi-score I
must say, and Andrew offers a
sort of proof.
LM

Chuckie Egg 238, 630 on L22
Amanda Joyes (10), Isleworth,
Middx

Chequered Flag Cambridge Ring
56.12

Pssst 86, 420
Sabre Wulf 174, 280 at 90
Zzoom 684, 400
Spectipede 48, 580
Atic Atac 145, 355 50mins at 100
Jetpac 2, 345, 000. I can assure
you these are all correct!
M. Edwards, Bishops Stortford,
Herts

Dear Lloyd, I am writing to you
hoping to get my hi-score
published. But I know that I won't,
but if I do here it is, 3, 589, 300.
You don't believe me, I find it hard
as well, it was just a lucky streak,
but I did it.

Ivan Wooll, Merrion, Dyfed,
Wales

Well that's really tremendous,
Ivan, and of course I believe you.
Congratulations! What was the
game by the way?
LM

Moon Alert 14, 760
Black Hawk 51, 418 on L4
Blade Alley 48, 786 on L14
(Admiral)
Full Throttle 1st at Silverstone by
25 seconds
Andrew Jones, South
Glamorgan, Wales

Wild West Hero 118, 010
D. T's Decathlon overall 642, 124
Underwurld 101, 541 at 28
Turmoil 3, 150 Point 1
Darkstar 5, 100
Dale Perry (15), Kettering,
Northants

Underwurld completed, 13
November 7pm
Stephen Hogan (14), Wollaton,
Nottingham

Underwurld completed on 11th
go, 31, 000 at 12
Sabre Wulf 56, 760 at 61
Full Throttle 1st on all tracks
Monty Mole 17th screen, 2, 000
odd
Hunchback 1, 000, 000 odd,
Esmerelda rescued 4 times
S. Murphy, Harrow Wealdstone,
Middx

Darkstar 4, 760 after 1hr 40
Alex Dady (14), London, print out supplied

Legend of Avalon Chief Lore Seeker
Simon Condliffe, Whitley Bay, Tyne & Wear

D. T's Decathlon 100m 9.18, Long Jump 10.29, Discus 75.72, High Jump 2.39, 400m 28.11, 110m Hurdles 9.88, Pole Vault 4.90, Shot Put 29.72, Javelin 127.46, 1500m 258; Day 1 score 299, 277; Day 2 score 530, 200
Mark Bishop, Tunbridge Wells, Kent

D. T's Decathlon 100m 9.22, Long Jump 9.81, Shot Put 28.76, High Jump 2.42, 400m 32.56, 110m Hurdles 12.44, Pole Vault 5.05, Discus 75.90, Javelin 90.59
Lords of Midnight completed
Hobbit completed
Beach-Head completed
Dangermouse completed 3 times in one go
JSW completed
Night Gunner Mission 11
Matchpoint computer beaten, semi-final
Cavelon completed
Stop the Express stopped
Sports hero 100m 10.08, Long Jump 8.75, 110m Hurdles 13.29, Pole Vault 5.50
Craig Jack(15), Swindon, Wilts.

Chuckie Egg 353, 940 on L31
Moon Alert 22, 460 on Letter Q
Sabre Wulf 340, 480 at 98
Pheenix 48, 720
Lunar Jetman 130, 030 on L9
Fred Level 5
Tranz-Am 8 cups
Fighter Pilot 3 planes shot down
Manic Miner 231, 390
completed the following: **Lords of Midnight**, **Urban Upstart**, **Planet of death**, **Velnor's Lair**, **Ant Attack**, **Mined-Out**, **Alchemist**, **Admiral Graf Spee**, **Time Gate**, **Black Crystal**
Football Manager finished top of all divisions and won the FA Cup in successive seasons. All scores done without a joystick.
David (I'm no cheat)Bovill, Gwynedd, N. Wales

Full Throttle San Marino 1st 14:58, Yugoslavia 1st 13:52, Italy 1st 10:03, Donnington 1st 42:18
Rod Forster, Rosyth, Dunfermline, Fife.

D. T's Decathlon 100m 9.96, Long Jump 10.26, Shot Putt 32.46, High Jump 2.45, 400m 36.32, total 129, 077; 110m Hurdles 11.14, Pole vault 5.04, Discus 75.90, javelin 132.70, 1500m 268.05, total 531, 779
Chequered Flag Cambridge Ring 0.51:06
Fighter Pilot my dad shot down so many planes we lost count. He's a pilot flying RAF Tornados.
Paul (13), South Wootton, Kings Lynn, Norfolk

Great - so where's his score on TLL?
LM

D. T's Decathlon 100m 9.32, Long Jump 11.40, Shot Putt 34.00, High Jump 3.36, 400m 29.00, score 6th level 175, 303. I do not submit my Day 2 scores since side two doesn't load. I would like to point out that if Charles Pilcher managed to get 297, 792 he would have made it onto level 10. His High Jump score, however, would not qualify from level 3.

Paul (Truthfully) Avetoom(15), Ealing, London W5

Moon Alert 156, 160 onto screen 2
Tranz-Am 33 cups
Harrier Attack 51, 010 skill 5
Chuckie egg 326, 160
TLL 21, 855
Full Throttle 1st on every track within 3 laps
Jetpac 310, 350
Ant Attack 10 rescued, 20, 930
D. T's Decathlon Pole Vault 5.03, Javelin 131.40, 100m 9.84, Shot Putt 32.01

John O'Halloran(15), Stratford-upon-Avon, Warwickshire

Atic Atac 87
Zzoom 52, 730 and 139 refugees
The Hobbit 72.5
Pssst 31, 000 odd
Gavin White(13), Ferryhill, Co Durham

Sabre Wulf 327, 535 at 100
Atic Atac 67, 495 with 97
Ant Attack 48, 013 completed
Timegate completed at level 5
Lords of Midnight completed both ways
Lunar Jetman 69, 400
Scrabble completed level 4
Jet set Willy completed
Trashman 8, 593
Deathchase 103, 355
Orc Attack 99, 400
Nicky Hartley, Ossett, W. Yorks

Atic Atac completed in 45
The Guardian 154, 720
Firebirds 129, 125 Wave 49
Gridrunner 202, 182

Rob Holmes, Wirksworth, Derbyshire

Pyramid 139, 765 L15
Stop The Express completed
Pi-Balled 1, 773 on L11
Moonbuggy 14, 200 on L6
Snowman 9, 780 on L8
Cookie 4, 225 on L5
Zzoom 40, 810 on L6
Pssst 33, 748 on L7
Arcadia 2, 540 on L15
Horace Goes Skiing 27, 000
Monty Mole L2 sheet 5
Carl Mouter, South Shields, Tyne & Wear

D. T's Decathlon I must start by saying all the scores are genuine, I made my father get out of his chair to see them for proof. If you don't believe me you can phone him up. 100m 8.92 (must be the fastest time, is there a prize?)
Long Jump 10.62, Shot Putt 27, 02, High Jump 2.38, 400m 29.68, score 201, 913; 110m Hurdles 11.75, Pole Vault 5.01, Discus 75.90, Javelin 114.87, 1500m 4.37:00, final score 373, 287
Sam Groves(14), Charsfield, Woodbridge, Suffolk

I think I'll let sleeping dads lie, you sound like an honest person.
Sam (!)
LM



Well we could go on, but my fingers would wear out, and the art department would scream at me for using up too much space and ruining the look of it all. Remember to keep sending in your photos, so everyone knows who to hate. Next, the Playing Tips.

PLAYING TIPS

Due to an expanded Hall of Slime and Robin Candy's POKEs Corner (C'mon, LM, get on with it -RC) - ahem, which follows, this month's Playing Tips have become a bit sandwiched! The games which seem to be on most people's minds are Pyjamarama, Avalon, Decathlon and, not surprisingly the two new Ultimate games, although at the time of writing, it's still rather early days. So, here we go...

We'll kick off with a quickie about Underwurld which just arrived from **Simon G. Roberts** (14) of St. Asaph, Clwyd, North Wales, who cheerfully says:

To get through the impassable gargoyles, land on a gem. This begins a countdown, for the length of which you gain invincibility. To get rid of the beetle, collect the sabre (level 17), and throw daggers at it.

We've also had a tip or two in about Knight Lore and these from the mysterious sounding **Micahel Y** from Childdwall, Liverpool, accord with things we noticed in reviewing the game:

When you press the jump button, sabreman will jump further if the button is kept down while he jumps. This is useful for screens where he has to leap long gaps. Another useful tip is to place an object next to a high wall and when you jump, press down the pick up button at exactly the same time. This way you can get over a wall without losing an object. The cauldron will only tell you what to put in next if it is daytime, and indeed, if it is night time and you are werewolf, the shape will come towards you and kill you. On certain screens when a bouncing ball has to be avoided you should pass through while you are sabreman otherwise the ball will attack.

Staying for a moment with Ultimate, here's a general tip on Cookie from **Stuart Gibson** (13), Plumstead Common, London SE18:

To get all the ingredients into the bowl you have to position yourself at the top of the screen. When an ingredient hovers over the bowl you should go down, firing at the

same time. repeat this until you have got all the ingredients. As for the nasties, you should try to shoot them down into the bin, but if you can't, try to shoot them straight otherwise they will go into the bowl.

From blasting food, we move to blasting ships, tanks and planes. **Lee Jones** from Liverpool, has this to say about the US Gold Beach-Head:

Always go through the Hidden Passage to get your points up and then you only need to shoot ten planes.

same subject, but with slightly different figures.

On the level where you must get the exact distance to sink the enemy ships, these are they. From right to left they are: 60.0, 55.0, 68.5 and 27.5. The moving ship is 51.5. Getting this right cuts down on ship losses for you and gets you to the next level much faster.

Hewson Consultants' Legend of Avalon is obviously making a big impression on many CRASHERS, judging by the mail, but I wonder how well most are doing, as there haven't been all that many offering tips. **Colin Eade** from Framfield, East Sussex, however, has:

The tips are what the star is used for in the second location from the start, and also how to get past the gate-house level.



Torpedoes and mines block the way through the Hidden Passage in BEACH-HEAD.

When you come to blowing up the ships, the aircraft carrier is about 40.0 degrees and the little boat on the right hand side near the edge of the screen is about 20.0 degrees. If it says 39.0 degrees and under it says 100 too short, it will be 39.5 degrees, because 100 is 0.5 degrees.

Quite! I now know why I failed dismally at trigonometry! However, to prove the point that everyone has their own method and it may well be worth trying out more than one, here's a letter from **John Jackson** from Sear Green, Beaconsfield, Bucks, on the

After you have got the useful spells, energise, freeze, servant etc., go back to the first location and follow my instructions using the spells when needed. Firstly, what the star is used for. From the first location go east (the star location), go north, and then west (down a tunnel), go east and you should be in a room with two doors, very close to each other, take the right hand door, and take the key, come out again and go in the left hand door, select servant spell and move the servant with the key to the chest. The chest will open, give Maroc the key and then take the object from the

chest. It should look like a yellow scroll. Now return to the location with the star. Hang around until a warlock materialises in the wall, then move the servant towards the warlock with the scroll. The warlock will go, and a white crystal will appear. Pick up this crystal and put it over the star. The points of the star will suddenly fill in, and this means the star will now act like the energise spell, except that the power is infinite - I have never found it to run out all the time I have been playing anyway. All you have to do is move onto the star and wait and watch your energy build up.

To get past the gate house level, go to the location with the adjacent doors, go west, go north, north and north again, now you should be in the room that is shown on the back of the cassette box. Take the servant with the key, open the chest and take the new object out (another key). Take this to the door and, surprise, surprise, the door will open. From here it is easy; just go through the door, and you're past the gate house level!

Colin also has a couple of questions for Derek Brewster, and they have been passed on.

Android 2 has not been mentioned much recently, but it is still a fascinating and very hard game to master. **D. Hobson** from Deepcar, Sheffield has a tip on it and one for **Stonkers**.

I have successfully completed **Android 2**, all three zones, the Flatlands being the most difficult. However, I have discovered a way to overcome the rapid loss of androids. For a successful completion you must position **Android 2** at the bottom of the screen (Flatlands) where the maze can be more easily accessed. You will find that the millitoids all try to enter the maze, so they become easy targets. To prove that I have completed the game, you will find that **Android 2**'s task begins again, yet this time the Bouncers etc are at least 3 times faster.

Stonkers. An easier way to defeat the opposition than the method suggested by **S. Hennessy**, is to position all your regiments together, each on individual sections. The opposition will attack, they are low on supplies and so can be easily defeated. You don't have to occupy the enemy base, just defeat the enemy.

PLAYING TIPS

I must say to anyone who thought computer games make people unfit that they should try Daley Thompson's Decathlon! For a week the CRASH offices were filled with the rattle of cracking joysticks, one of the worst offenders being Mr. Robin Candy (who's waiting impatiently to get on with his POKEs) who drove us all mad. His main tip for playing the game was helpful - lay in a supply of joysticks! **Mark Bishop** from Tunbridge Wells in Kent, has some rather more practical things to say:

You need one strong arm, a good amount of guts, stamina, and above all you need to be athletic!

Well that doesn't sound any more practical than the Candyman, but he goes on to say:

The 100m can be improved on only by getting a fast start. To do well in the long jump you need a lot of speed and aim for 50 degrees (I find 50 degrees better than the 45 degrees stated in the instructions). For the discus only hold onto one button, you will speed up as much as when you keep pressing. For the high jump you have to hit the keyboard very quickly and then when you are about to go over, hold onto the jump button. For the 110m hurdles you must get a good pattern. I find that you only need to let the runner take two steps in between each hurdle. For the shot put and javelin you should aim for 54 degrees, and don't go too fast in the 1500m

... and make sure your laces are tied, and there's a handkerchief in your pocket and... But wait, Mark hasn't finished! Oh no! He's written a poem...

Here's a word of advice, for you today,
Read CRASH carefully
Before you play!

Decathlon is very tough
After playing you'll be fit
eventually you will be tired
and forced to quit.

If you train hard today,
and your records hold,
You'll be at the next Olympics.

Collecting for us a gold!

Thank you Mark, don't call us, we'll be in touch - one day. At least Mark sounds like he works at winning, **Craig Jack** from Greenmeadow, Swindon, sounds like more of an armchair enthusiast!

I have discovered a couple of bugs. In the 100m sprint, if you stay on the blocks until about 995 seconds and then run full pace, the time will reset itself and you should record a time of approximately 5 seconds. Tip 2. In the high jump, if you run until you are directly under the bar and then jump and hold the button down you should go underneath the bar without knocking it over, therefore registering a clearance. But you can only do this after about 2m 5cm.

I get the feeling I printed something like this last month (never get time to read the mag these days!) and I'm as

disgusted by the lack of sportsmanship now as I was then. I've seen your picture Craig, the one sent to the HOS, and you look as honest as the day is long. How the camera lies.

Martin Leighton from Chester is another weekend gold digger:

While playing Ocean's Decathlon I discovered this tip for the discus. When Daley's speed is in the second square, throw the discus south east at an angle of 36 degrees and you will throw it a distance of 168.96 metres. I have achieved this four times.

All I can say is I hope Daley Thompson doesn't read CRASH because he'd probably turn white with horror at all this cheating. Do you read CRASH Daley?

Turning from the blood, sweat and tears of the track events to the mythical mists of the Celtic past, **Michael Rowe** and **Simon Dawson** from Mansfield, Notts., are hard at work on Gargoyle's Tir Na Nog. They haven't completed it yet, but have this to say about finding the somewhat necessary sword:

Starting from the Altar of the Seal, walk right until in the Central Plain. Press Enter three times and you will be facing three doors. Take the first door on the left and you will be in the Forest of Cern. Go back through the door and keep walking until you come to the cave, walk through it and press Enter again three times, then walk left and take the first entrance (cross pathways) on the left. Now walk left. You will pass one door, but don't take this one because it leads into the Plain of Lies. Keep walking left to the second door and go through there. If you have followed the instructions correctly you should be at the sword. Use it wisely.

Micahel and **Simon** say they will write again when they have completed the adventure. I could be pensioned off by then. **B. Smith** from Hilton, Derby, has a novel way of dealing with the Sidhe:

If you are frustrated at being killed of by a Sidhe after a long trek from the Altar of the Seal then wait until the Sidhe has

walked through your position, select the Option Key, Enter TIR NA NOG, and your man will be standing where he was and the Sidhe will have passed - also works on the cave wights??

I think you may find that Gargoyle Games are aware of this little bug and are putting it right, so it may not always work for everyone.

Quicksilva's Fred never really grabbed me, I don't know why, but it has certainly lingered in the Hotline for some time. **A. J. Walker** of Sowerby Bridge, West Yorkshire, has a method for getting easy points:

If you shoot a ghost when it is half way through a wall, you lose all your bullets, but the ghost is trapped, provided you don't move. The ghost will then keep moving back and forth in the wall, giving you points. But beware, when they escape you must be quick to get away yourself.

Believe me, when a ghost leaps out of a wall I don't hang around. And talking of monsters **Steve Jarman** from Newtown, Powys (just over the border from Ludlow), has the following advice on Frank N. Stein by P. S. S.

Use the electric shock to reduce the reading on the meter if it gets too high. When trying to deactivate the monster, take a few moments to study the lay out. Watch out for ice, remember, when you go onto ice you won't stop sliding. On deactivation screens, if you wait for a creature above to move out of the way, don't hang around the spring you want, or you'll end up with a cannon ball between the eyes. Even with that info I can only reach level 9.

I liked the game, very playable and quite difficult. Finishing games that have ends (ie. not shoot em ups that just go on and on) has become all the rage, especially when it comes to getting your name into print as being the first to do so. We get a lot of letters claiming to be the first at something. **David Dixon** from Gateshead, Tyne & Wear says:

I am writing to tell you that I



am the first person to complete Pyjamarama. It was done at 10:01pm on Wednesday 14th November, having bought the game only the Saturday before.

Well that is a very fast completion time, David, but I regret to say that you are far from being the first, since we had letters in well before you even bought the game from people who had clearly completed it. Our own 'mapping' dept had it finished about five weeks before your date. Mikro-Gen clearly thought the average date of completion for most would be around the 5th of November!

Mark Griffiths of Southsea, Hants, says he hasn't seen any playing tips for Bug-Byte's Rapscallion, so he's written to put the matter straight.

The Wilderness is the first stage. You need to touch a pixie to see the magic key and the magic shield. the shield protects you from the sleeping guard. There is nearly always a crystal or a pixie nearby. If you enter the room 'anyone for tennis' beware, because if you are a bird you will get stuck in the net, and as soon as you enter 'target practice' head for the floor as soon as you can or you will be shot. In the magic labyrinth you must get the magic eye. When you have this the three wizards become visible. You can only get the wizards when they are resting. When you have done this you must travel to 'concorde's nest'. Travel from the top of the room and you will be in 'insecticide spraying'. Travel

Well there we go. It's time to nip down to the market hall and get a pheasant plucked, or whatever they do, ready for the usual obscene (or do I mean obese) rights of Christmas dinner. Time to hand you over the the tender mercies of the King Street Hacker (as Scotland Yard know him), Robin Candy. Sorry if I didn't print anyone's letters, there are so many it is hard, but without the volume there wouldn't be the ideas, so please keep writing in, especially with tips on some of the older or more obscure games that rarely get a mention. Write to LLOYD MANGRAM, PLAYING TIPS, CRASH MAGAZINE, PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB. I know sometimes you would like a quicker and more direct reply to some problems, but it just isn't possible, otherwise I'd never get any articles or reviews done!

SPECIAL NEXT MONTH! Watch these pages for our huge map of The Edge game PSYTRAXX. Yes folks (LM hype dept.), all those thousands of rooms, laid out for you - DON'T MISS OUT!

And now - Here comes Robin!

right and you will see some exits, one of them is the way to the castle, but it changes, so try them all.

The castle is the hardest stage of them all. If you stay in a room for too long Rapscallion the Rogue will come and get you. At this stage you are required to collect containers, which need touching. When they are full size they can be touched. When you have both of them you will be able to get the magic wand, and when you have this wait for Rapscallion, who will have shrunk, to come and touch you. At last, you have the title deeds to the castle. I completed the game in an hour.

I said in my 'Look Back' piece that I thought Zombie Zombie was a bit disappointing as a follow up to Ant Attack, but **Gareth Cavacivti** from Blackwood, Gwent, disagrees with me:

Anyone lucky enough to have a copy of Zombie Zombie by Quicksilva, might be having problems in killing zombies. To kill them you must first creep up on them from behind making sure that they don't see you. When you touch them on their back, they don't kill you but follow you. You then lead them up onto a wall of at least 3 blocks in height. Music will then play and you jump off the wall. The zombie will follow and die. A zombie, if it can't carry straight on, will turn left. I think Zombie Zombie is a great game and was worth more than the overall score of 80. Keep up the good work!

Robin Candy's



POKEs CORNER

We have been promising for a few issues a bumper bundle of deceitfulness, so over the past few weeks we employed the expert safe breaker ROBIN CANDY to compile this load POKEs. (The compiler used was the Psstek Hi-Valley MkXVI).

Over the recent (and not so recent) months, many of the country's best cheats have been sending in their routines and methods of cheating on an assortment of games. Here I am, to tell you how to get infinite lives on many games, so you - the arcade wally - might some day have the satisfaction of seeing your name in the all-creeping CRASH HALL OF SLIME; (I think you're missing the point here, Robin - they're not supposed to cheat for the Hall of Slime, I know you do when you send your scores into PCG - LM) so you can once again hold your head up high when your best friend tells you about how he notched up his twelfth billion on Sabre Wulf; and you will be able again to compete against your two year-old little sister without being beat by too much on Lunar Jetman...

But still, there's no point cheating if you don't know how to.

What's the point to a POKE if you don't know where to put it in the first place. Of course most hardened CRASHERS know exactly where to shove a POKE, but for the few that don't let's kick off with how to put one in.

First you must get the Spectrum into EXTENDED MODE. This is done by pressing CAPS SHIFT and SYMBOL SHIFT together, then press

CAPS SHIFT and T together and MERGE should appear on the screen. Once you have got MERGE on screen, press SYMBOL SHIFT and P together twice, so that you have MERGE """. Press ENTER and start the tape. When the screen comes back with the OK report after a few seconds, stop the tape. Now list the program (sometimes you may have to change the

PAPER or INK colour, and this is detailed in the Spectrum manual).

Now you must edit the line in the program which has the last PRINT USR or RANDOMISE USR statement in it. (Editing is also detailed in the Spectrum manual). Once you have done this you must insert the POKE just before that last PRINT USR or RANDOMISE USR statement, making sure that there is a : on either side of the POKE figures (: is got by pressing SYMBOL SHIFT and Ztogether). Once this is done press ENTER and if all has gone correctly the line you are editing will jump back up into the program. Now press R key, and restart the tape from where you stopped it. The program should now load normally. (Note: if you fail to stop the tape quickly when the OK report pops up, rewind it slightly before the second load).

Now onto Jet Set Willy, the program which brought pokemania to a high art, (Manic Miner having spawned it). Alas, the new hyper loads may bring a stop to all that...

Stephen Combordelle of Stockport sent these in:

POKE 35123, 0 Gets rid of all the monsters

POKE 36358, 0 Makes Willy jump until he hits something

POKE 36477, 1 Lets Willy fall as far as he wants

POKE 34275, 10 So you don't have to enter the

WRITETYPER code to gain access to any sheet

POKE 5990 0, 255 Disables the Attic bug.

Stephen wasn't the only person to send in these POKEs, but he was just lucky to have his letter pulled out of the multitude. Well, onto some more JSW POKEs. Don't worry if you weren't (or aren't) credited - we received literally hundreds and hundreds of letters on the subject, so it really is the luck of the draw, we didn't pay any heed to the death threats or the bribes (Speak for yourself LM).

POKE 41983, 256 = X Where X is the number of objects to be collected. This was sent in by Stephen Bluck of Stafford.

POKE 37874, 0 Items are collected as soon as you enter a room

POKE 35899, 0 The famous infinite lives!

POKE 36545, 0 Makes the Banyan Tree a bit easier

POKE 41983, 255 You have only to collect the tap to see the finale effect

POKE 36635, 239 You can now use Interface 2
POKE 38240, 0 Obliterates the dreaded Martha
The above were sent in by Mark Smith from Norfolk.

Well that wraps it up for JSW. I know there are hundreds more, but most of them are a bit pointless to say the least. Thanks to all who contributed them, but please don't send in any more, I'm beginning to think that the only reason JSW stayed popular for so long is because people like tearing the program apart to see how they can alter it. Oh well, one more item then. This is for people who are having trouble putting POKEs in. It has been sent in by many readers, and it does the job for you - only for JSW though.

start off with the much sought after Sabre Wulf monster killer POKE which comes in two forms. The first obliterates the materialising monsters and the second which just about obliterates everything but does have one side effect in that it makes an annoying sound and if you press fire everything reappears...

POKE 39702, 30 Gets rid of the materialising monsters
POKE 39393, 0 Which gets rid of everything

Both these POKEs were sent in by Chris Colesell of Stafford. To insert these is rather difficult because the line you have to edit is line 0 which

DEVPAC in one hand and a cup of tea in the other he started on his quest for immortality on *Lunar Jetman* and he found it - so here it is, the definitive POKE for Ultimate's *Lunar Jetman*:

10 CLEAR 24575: PAPER 0:
INK 0: BORDER 0: CLS
20 FOR L = 1 TO 5: PRINT
AT 6, 0; :LOAD "" CODE:
NEXT L
30 POKE 23439, 20 1: POKE
36965, 0: RANDOMISE USR
32768

Run that program and start the tape and the program should load as normal. Spurred on by his success with *Lunar Jetman*, Paul decided to turn his talents to *Atic Atac*. Edit the loader (as shown elsewhere) and insert the following POKEs:

POKE 36519, 0 For infinite lives
POKE 35353, 0
POKE 35362, 0
POKE 36571, 0
POKE 39092, 0 These four stop all energy drains
POKE 37229, 175
POKE 37260, 175 These two make the doors decidedly nervous

And finally from Paul Hutchinson come some POKEs for *Frank N. Stein*, which is a bit naughty of him considering he works for P. S. S. These POKEs should be inserted in the loader just before the RANDOMISE USR statement:

POKE 34124, 0 This gives infinite lives on the version of *Frank N. Stein* which has a title screen and bonus lives.
POKE 28277, 0 :POKE
28278, 0 Gives infinite lives on the original version without the title screen.

All these POKEs are by Paul Hutchinson of London, who has just had his game *Xaviour* released by P. S. S., and he goes on to say that the sequel will be even better.

For infinite lives on *Tranz-Am*, type in this little proggie, RUN it, start the tape and the game will load as normal but with infinite lives.

10 CLEAR 24319: LOAD
"" SCREEN\$: LOAD
"" CODE: POKE 25446, 0:
LOAD "" CODE: LOAD
"" CODE: LOAD "" CODE:
PRINT USR 23424

Type this program in, but between lines 100 and 1000 insert the POKEs that you wish to use. When you have finished inserting the POKEs (remember to use line numbers) run the program and start the tape and now your new poked version of JSW will load.

Now some POKEs for the Ultimate range of games. To

cannot be edited in the normal way. This can be overcome by a simple POKE (which I can't find at the moment! I'll come back to it later on) or by a new loader which can be written incorporating the POKE like so:

10 LOAD "" SCREEN\$
20 LOAD "" CODE: LOAD
"" CODE: LOAD "" CODE:
LOAD "" CODE:
30 POKE (whatever)
40 PRINT USR 23424

Enter this and run it, start the tape and the program will load (except the first part).

Now follows a tip for *Lunar Jetman* from Paul Hutchinson who decided to 'go it alone' after becoming disenchanted with trying Chris Sutherland's POKE (like a lot of people)! With his trusty

For infinite lives on *Jetpac*, type in the above program but altering the CLEAR to CLEAR 24575 and the PRINT USR to 24576 then delete the previous POKE and add the following POKEs in its place:



POKE 250 15, 62
POKE 250 16, 5
POKE 250 17, 0
POKE 250 18, 0

For infinite lives on *Cookie type* in line 10 of the *Tranz-Am* routine yet again, but type in these POKEs instead of the original POKE:

POKE 28695, 62
POKE 28696, 5
POKE 28697, 0
POKE 28698, 0

The above POKEs were sent in by **Richard Hyde** and **Steven Walters** of Bucks.



Many people have written in asking me how I got that unbelievable score on *Ocean's Moon Alert*. Well the sad truth is - I cheated using a couple of POKEs that make playing *Moon Alert* totally pointless (the score was achieved while I was having a bath, I just left the Spectrum on to see how many thousands it could score while I was submerged). (*Bet you forgot to wash behind your ears* LM)

POKE 39754, 0 Gives you infinite lives

POKE 42654, 195 And you just can't die, nothing kills you (Great! I guess that should get state-of-the-art award for sheer minimalism - LM).

Both of these POKEs are from a reader in Brussels, I can read his address but not his name, sorry whoever you are.

The rest of the POKEs are in no particular order because they are just odd POKEs which have drifted in out of the multitude of playing tip letters which ol' LM (notice how his name always comes up in bold face? It's a way of compensating for his lack of pay) has handed over.

Pyramid POKE 44685, 0
Limitless energy (forgot sender's name and address!)

Arcadia POKE 25776, 0
Infinite lives, sent in by **Richard Hyde** and **Steven Walters**

Hunchback POKE 26888, 0
Infinite lives, sent in by **Simon Trigg** of Herts

The next bunch of POKEs are from **Paul Rowland** and **Mark Young** of W. Sussex. They wrote an extremely short letter but with the most PS's I've ever seen:

Defenda POKE 37531, 0 Infinite lives, and for the same game

Robin Candy's POKES CORNER

POKE 24942, n Where n is the number of lives, up to a maximum of 250 (*Ah Diddums*)
POKE 23821, n Where n is the number of lives, in *Wild West Hero* it's up to a maximum of 22

Here's three more POKEs from far away Brussels. All three are for infinite lives on *Tutankhamun*, *Freez Bees* and *Pi-Balled* respectively:

POKE 27783, 0
POKE 34610, 0
POKE 44416, 5

Well that's about all the POKEs we have at the moment (*There's probably loads more, but he likes to horde them so no one else can beat his hi-scores when it comes to sending them into PCG - LM*) but keep em coming and make sure they work before you send them in because they only waste 'precious' space and people's time. Send in any

tips, POKEs or microdrive conversions because they are useful, and thanks to all those who sent POKEs in and
HAPPY HACKING

(Is that it? Has he gone? Good - okay I can get rid of these brackets again -)) - Phew, that's better. Anyway, enough of these juvenile maulders. Thank you Robin, don't call us, we'll call you. I suppose I shouldn't be too mean, after all, it is the season of good will and all that, but I find myself torn between gratitude that the management have given me a handy POKE helper who I can kick when things aren't going well, and bitterness that he gets paid out of my salary. Life's never fair! Anyway, Robin Candy's POKE CORNER looks set to be a sort of regular, so, do as he says, and keep them coming in. See you next year - LM.

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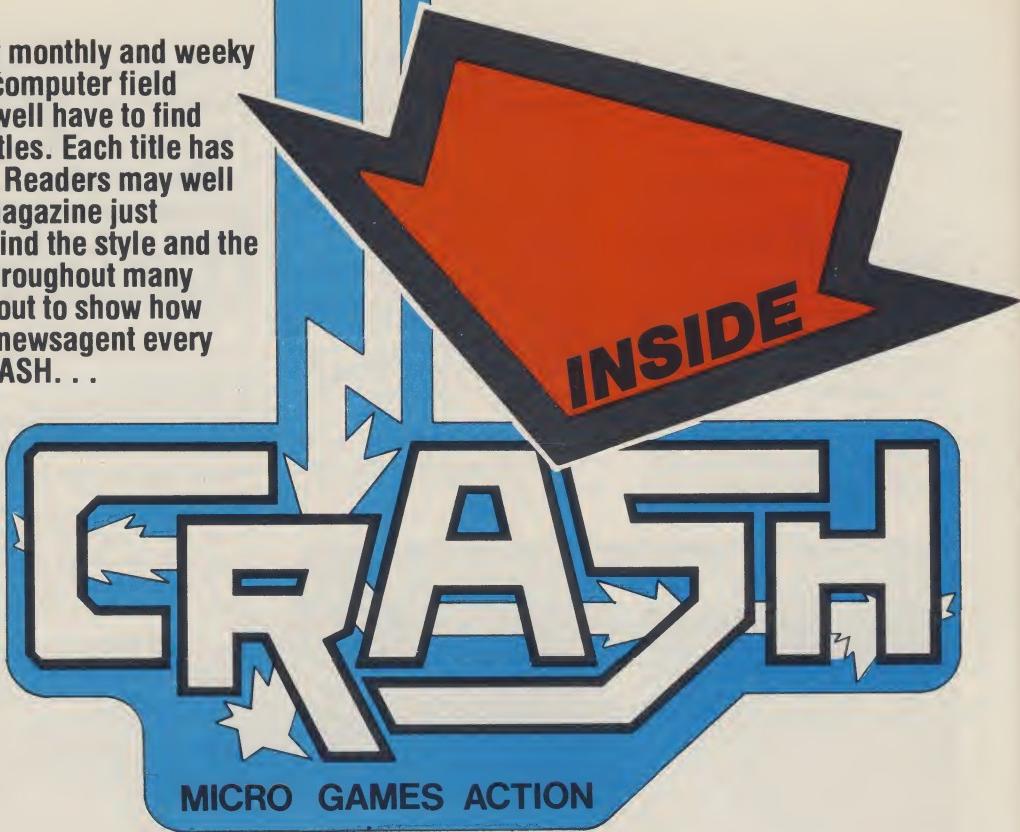
DEPT: SU9 32-33 LANGLEY CLOSE, REDDITCH, WORCS.
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There is a staggering number of monthly and weekly magazines in existence. In the computer field alone, W. H. Smith shops may well have to find shelf space for as many as 80 titles. Each title has its own style and its own 'look'. Readers may well be forgiven for thinking that a magazine just 'happens' every month, but behind the style and the look a lot of effort goes into it throughout many stages. This article doesn't set out to show how every magazine arrives at your newsagent every month, we're just looking at CRASH...

CRASH is perhaps a little unusual compared with most other computer magazines. For a start off it is not produced by one of the major publishing houses which include EMAP (Computer & Video Games, Sinclair User), Argus Specialist Publications (Home Computing Weekly, Games Computing), VNU Business Publications (Personal Computer -Weekly, -World and Games) and the giant IPC (Big K, and through its Business Press section, Your Computer). All of these organisations have their headquarters in or around London. CRASH is published by Newsfield Limited, based in the small Shropshire town of Ludlow - about as far away from computers as you could imagine. But that's one of the wonders of the home computer - they're everywhere!

It was one of the major points in the concept of CRASH when it started a little over a year ago, that reader input would be an important aspect of the magazine, and in the light of that we have always tried to be straightforward with any comments on the contents of the publication. I doubt, for instance, that any other title in existence has had such a strong two-way dialogue with its readers over magazine aspects like spelling or typesetting errors, as we have had over this year! Continuing that policy of openness, we felt it would be interesting to give readers a brief insight into how the magazine is actually produced, starting from the moment one issue has 'gone to bed.'

'Going to bed' might be a good place to start - it's what most CRASH staff feel like doing when an issue is finished! But the phrase goes back to the earliest days of printing, when pages were impressed with their contents on huge machines where the text was etched onto blocks of copper laid on a solid 'bed' and the paper was pressed onto the inked plates by a heavy roller. Things have changed quite a bit, as we shall see...



THE FUNCTIONS

AS in most things, there are departments to CRASH which each have their own responsibilities. Broadly these are Editorial, Production, Advertisement, Administration and Finance. Finance falls outside the scope of this article. Editorial organises the written material, Production designs and lays out the issues, Advertisement secures advertisers and their ads, and Administration (naturally) largely cocks up everyone else's work!

Editorial, Production and Advertisement are very often kept quite separate in most organisations, but not so with CRASH. Each issue is planned at the time of working on it, and it is important to keep all departments closely in touch with each other, often complementing each others' efforts. It is also worth bearing in mind that although this article may make it appear that things happen in clear-cut stages, usually all the processes are going on at once - it's chaos at times, or, as the favourite phrase would have it, 'It's a nightmare!'

PLANNING

THE first thing to be decided is of how many pages will the issue consist? This is dependent on several factors like, how many advertisers are



A daily production meeting taking place around the editor's desk. Present are Roger Kean (editor), Oliver Frey (art editor), David Western (production design), Matthew Uffindell (software reviews), and Kevin Foster (assistant editor).

there, how many games are expected to be reviewed, how many competitions will there be, and so on. Advertising is a very important factor, because it governs the number of pages it is economical to print. In the 60s paper was only a fraction of the total production cost of a magazine. As a result it was news stand sales that made

the publisher his operating costs and some of his profit. Today, paper costs make up almost two-thirds of the production cost - as a result news stand sales only account for a part of the operating costs and ad revenue has to make up the rest and hopefully end up with some profit.

Once these items have been

clarified and the pages decided upon, the planning really starts. The function of the Editor (Roger Kean) is to oversee the general scope of the written material. He also writes quite a chunk of it, helping with reviews, articles and competitions. Kevin Foster is the Assistant Editor. He is responsible for incoming news items, organising competitions with software houses and making sure the details are all written up ready for typesetting. Roger liaises with outside contributors like Derek Brewster and Angus Ryall, ensuring that their material arrives on time.

Each morning there is a production meeting. This sometimes only lasts for a few minutes and involves both the editorial and the production people. It helps to keep everyone informed as to what is going on. During the first week of an issue at these daily production meetings the issue is planned out. By the end of the week the Tick Off sheet can be drawn up - we'll look at that under the Production heading later.



EDITORIAL

ONE of the most important aspects of CRASH editorial is the games reviews. The process of reviewing games goes on all the while. 18 year-old Matthew Uffindell is the in-house reviewer and as such organises the other reviewers. This entails logging cassettes as they arrive from software houses and seeing that the



With the outside reviewer's reports in, Matthew and Roger collate and write up the review. Spectrum and monitor sit cheek by jowl with the Apricot computer into which all the material is typed ready to go to typesetting.



review team get them in good time to be able to report back. CRASH has six regular reviewers ranging in age from 14 to 30 who tackle the arcade games. They come in from day to day, collect games and review report forms, returning everything when they have finished. It is a policy that at least three of them get to see every game.

When the reviews are being written up for typesetting, the introductory pieces are usually written by either Roger Kean or Lloyd Mangram aided by Matthew, who plays the game as the review is being written to double check on the stated facts given by the various reviewers.

Meanwhile, Kevin checks press releases for news

material and calls back anyone if he wants more detail. He also pre-sorts incoming letters to ensure that Derek Brewster receives his Adventure Trail letters and Lloyd Mangram gets his Forum mail. The pre-sorting is a big job as many letters contain playing tips and hi-scores as well as general Forum information.

Gradually, during the three weeks of an issue, all the material comes together and is typed into an Apricot computer using a word processor program called Superwriter. The resulting floppy discs are sent to London where the typesetters do the rest.

TYPESETTING

IN the early days of mass printing typesetting meant exactly what it said. From a written manuscript a typesetter actually cast the printing letters in metal (usually lead), or he already had stacks of pre-cast

Sorting competitions is quite a task.





letters, rather like the ones you get in a John Bull printing kit. These were arranged in trays as a 'make-up' from which the page would eventually be printed. In fact he actually set the type. Similarly any pictures, photographic or drawn, would be engraved onto plates and set flush in with the type. Today it's all done with computers, but the old words remain. A typeface (ours is called Helvetica) is called a *font* (or *fount*, from the word metal *foundry*). Adding a larger space between lines of type is called 'adding lead', because that's what you did, add blank lead.

Now the information is typed into a computer and a floppy disc is slotted into a typesetter photo unit, which contains numerous different type faces, and the result is photographed onto a roll of bromide paper, which is processed just like an ordinary photograph. But the typesetter needs to know certain vital things from the editorial department. These include factors like how wide will the printed column be (the column you are looking at now is a quarter column – four to the page), will it be justified (this column is justified – those in the Forum for example are unjustified, as they are ragged on the right), what point size will the type be in (this is 9 point), what type face (this is Helvetica Roman, Helvetica Bold looks like this and Italic like this). The sub-headings on these pages, for instance are in 12 point Helvetica bold condensed which looks like this). All this information is included with the floppy disc and the typesetter machine does it automatically. The resulting bromides are returned to CRASH for the production department. It is an early example of where editorial and production must work together, since it's no use editorial getting a piece typeset across a quarter column if the production plan calls for a third column or half page.

SCREEN PHOTOGRAPHY

AS the reviews are being written up, the games must also be photographed. This is done by Production Designer David Western. It's quite a

simple process, but time consuming, and involves the use of the excellent Microvitec Cub Monitor with a camera pointed at the screen at a set distance. Here, Matthew usually divides his time between review writing and helping with the photography, since it requires someone to play the game to a certain point, while David photographs. The Cambridge Slomo has also proved invaluable in getting good freeze frames.

The colour screens are the first to be taken because the colour work in CRASH takes the longest to prepare for printing and must be ready at least a week before the rest. It is equally important, therefore, that the editorial side gets those reviews and articles written first.

Once the photographs have been taken, processed and contact printed (all done in-house), the captions can be written for them. The black and white screen pictures are then enlarged ready for layout.

PRODUCTION

THE heart of CRASH lies in the writing and in the layout, or design, of the magazine. It is a long and complicated business. As we have seen, it starts with the daily production meetings, from which emerges a plan for the issue. The plan is shown as a 'Tick Off' sheet, basically a list of all the pages which shows where the colour pages fall, and what goes on each page. It's called a 'Tick Off' sheet, because when a page is totally finished ready for printing, it gets ticked off and can be forgotten – well, almost forgotten!

Juggling with the tick off sheet is a work of art. First of all the advertisers who have booked space have to be slotted in, bearing in mind their requirements. They all want to be on right hand pages at the front of the magazine, for instance! CRASH is printed in several sections of pages comprising of 32 pages per section. In those 32 pages there will be 16 which can be in full colour, and they fall in very specific places, which makes the juggling act even harder. It's all too easy to end up with too many adverts one after the other, which doesn't look good.

With the tick off sheet planned out reasonably well (it changes daily in minor ways due to alterations in design, or because an article ends up being longer than originally planned for), layout can start.

CRASH is laid out on grid

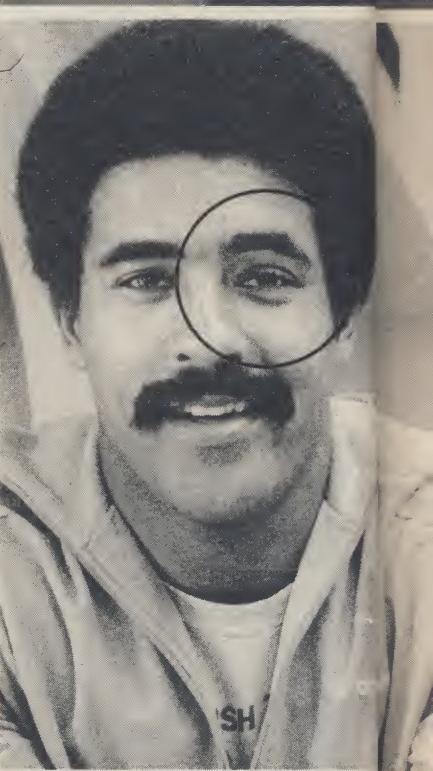
sheets. These sheets, slightly larger than A3 size, contain two pages side by side, pre-printed with pale blue lines which denote the maximum page size (A4), text area (so that there is a neat margin all round) and other details like the vertical quarter, third and half page columns for lining up the text.

The bromides which have arrived from the typesetters containing all the written material, are trimmed and stuck down on the sheets. It is here that the real skill comes in, because the typesetting must be cut up and arranged on the page in an orderly and pleasing manner, leaving room for pictures and captions. At the same time the photographs must be slotted in. A photograph is referred to as a *contone* or continuous tone, meaning it is made up of every element of grey from black through to white. The printing press won't be able to cope with this, as all mono printing is literally only black and white. Before it can be stuck into position on the grid sheet, the photograph must be converted into a *PMT* which stands for Photo Mechanical Tint (a tint is lots of regular dots). This is done on the Process Camera, a machine which can reduce or enlarge a photograph through a fine optical screen of tiny dots. The resulting bromide looks like the original, but is actually made up of thousands of black dots of varying size (see picture). The PMTs may then be stuck down in position to complete the page.

ADVERTISEMENTS

ANOTHER function of the production department is to ensure that advertisers' material arrives on time, in the correct state, and goes off to the printer. In the main there is little production work to be done on ads, as the advertisers should have already done it all. It merely remains to attach a piece of paper to the film containing the ad and write on it the page it should appear on so that the printer knows. But in some cases additional work is required. This may be minor, like the alteration of the advertisers' coupon code which tells him what issue of which magazine the coupon came from. Sometimes it may mean doing quite complex process work on the process camera to get the ad into a fit state for printing.

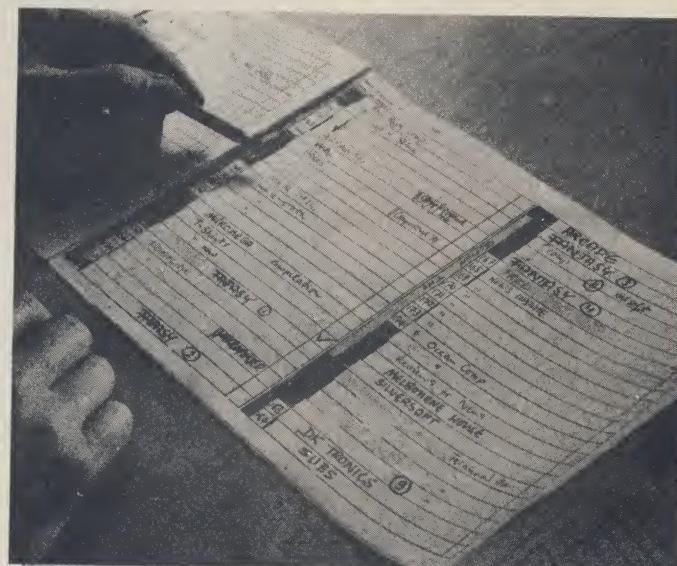
We do some of the more simple colour editorial work in-house, but most of it has to



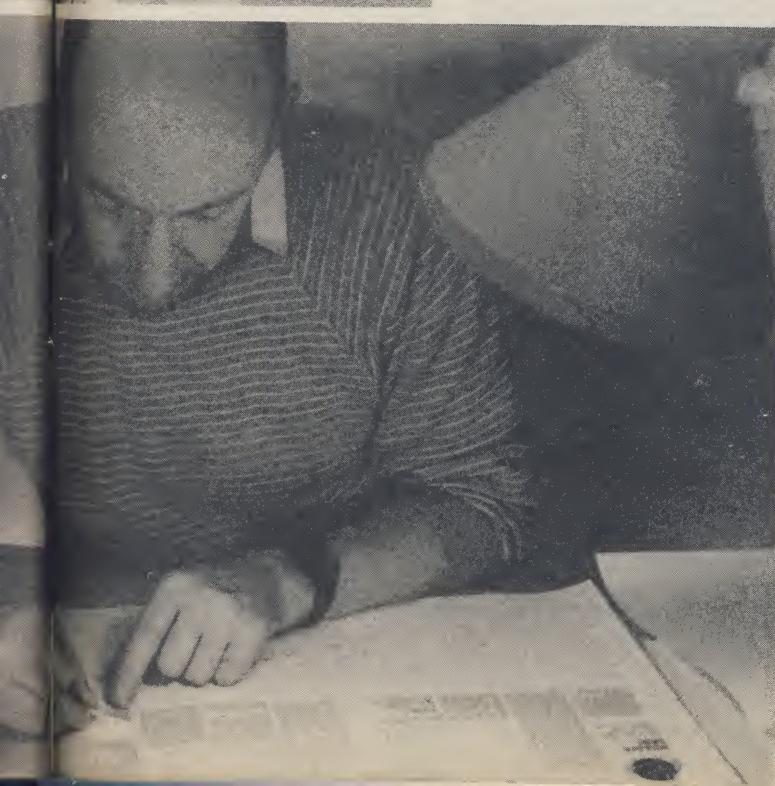
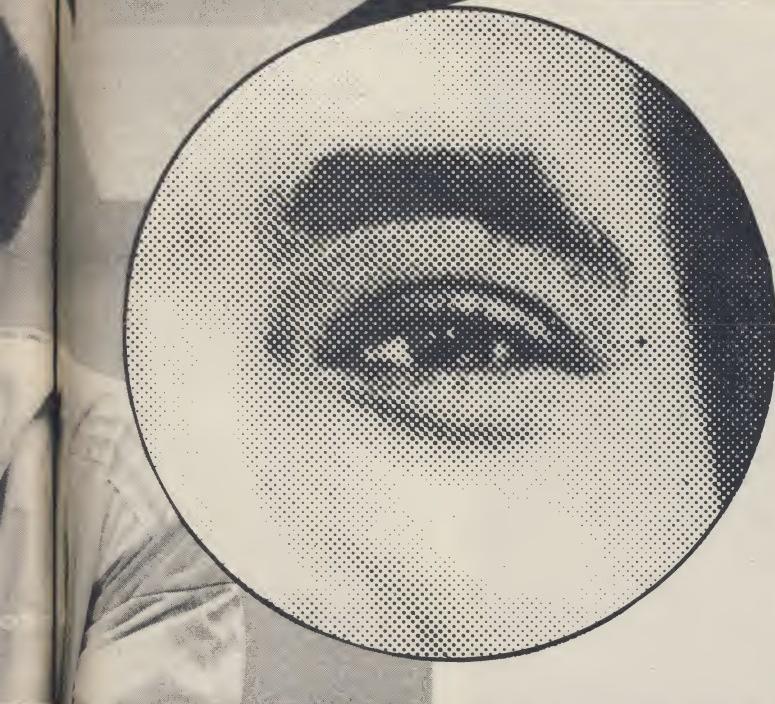


Game screens being photographed off the Microvitec Cub Monitor. Recently, some magazines have taken to using screen dumps made on colour ink printers, but at CRASH we still think that the 'feel' of a photograph is better. The camera is usually set to a shutter speed of or a second to take account of the TV roll bar. That's why freeze frame facilities are essential for a still picture, and that's where the Cambridge Siamo device comes in handy.

You may think that the pictures on these pages are photographs. In fact they are not, because a photograph is made up of a range of greys. These pictures are made up of black dots. In this example, the circled area of the picture has been blown up to show the black and white dot structure. All photographs in magazines and newspapers are done in this way. The dots are created photographically in the process camera by using a plastic screen made of very fine, regular dots. It is called 'screening' and the result (which is a PMT) is usually called a half tone, whereas the original photograph is called a continuous tone.



This is the 'Tick Off' sheet for the Christmas Special issue which you are reading. It details the pages, where colour falls, and what will happen on every page. The tick off sheet mutates as the issue progresses and alterations are made to the plan, but without it, layout would be impossible.



Photographs for news pages or review pages have to be sized to fit the slot left for them on the page. The process camera is not only able to 'screen' the photographs into PMTs (half tones), but also to enlarge or reduce them to fit the designer's requirements at the same time.



A set of advertiser's film separations on the light table. The four pieces of film carry information to be printed in Magenta, Cyan, Yellow and Black. The production department only has to 'tag' these with a piece of paper bearing the page number on which the ad is to appear, and send them on to the printer.

CRASH is laid out on grid sheets (or layout sheets). The detail of the columns and page sizes is printed in a pale blue ink, which the process camera can't 'see', as the process materials used are only sensitive to red or black. So that when typesetting is stuck on the sheets and they are photographed in the process camera, all the blue lines remain invisible. These lines are used for lining up typesetting, half tones etc. Here we see David Western placing a piece of typesetting on a grid sheet. The typesetting comes in a long roll which must be chopped to fit the page, and trimmed to just outside the writing, so that the lines between the columns can be drawn in afterwards.

be sent to London, to a specialist house. Pages with colour have the text stuck down and are marked up to show where the colour transparencies should go. Modern high speed colour printing is done using only four colours, Magenta, Cyan, Yellow and Black. Any colour photograph must be scanned and separated so that film is produced for each of the four colours. The film is, of course, in black and white, and contains the photographs in the form of a PMT, ie. thousands of dots. A set of four pieces of film containing the page is known as a set of separations, because the four colours have been separated from each other. When each of these four layers is printed one on top of the other in register in its proper colour, the result looks as if it is in full colour just like the original. It is in this form that advertisers' film should arrive.

Eventually all the grid sheets are laid out, complete with their headings, text, captions, pictures in PMT form, page numbers and any illustrations and they are almost ready for the printer. The artwork in CRASH is done by Oliver Frey. While the issue is being laid out, he will be painting the cover, the comic strip Terminal Man, any other colour work that is required, and adding small black and white illustrations where David has left room for them. His colour work also gets sent off to the specialists in London to be scanned and screened and planned together with any text.

PRINTING

MOST magazines today are printed on high speed Web Offset machines, which are enormous. The web refers to a vast, continuous roll of paper, big enough to print 8 or 16 pages simultaneously on either side. Offset refers to the fact that the image on the printing plate is inked, makes contact with a roller, the image is transferred to this roller, which then contacts with the paper - in other words the plate and paper never actually make contact, they are offset from each other.

The plates which are strapped into the printing



Oliver Frey at work on some colour art for the issue. Oliver works with both conventional brushes and an airbrush, using inks on board. Often the originals are twice the finished size to allow for more detail work. This board will be sent to London where it will be turned into colour separations on a laser scanner, and then combined with the relevant text. The text is stuck down on a separate grid sheet.



The Process Camera. Artwork or photographs to be processed are placed on the copy board at the bottom, under a plate of glass. A vacuum is applied to keep everything absolutely flat. Powerful lights either side illuminate the artwork. On top is another vacuum head. Here the bromide paper or film is placed onto which the artwork is to be photographed. Sometimes the bromide paper onto which the image will be projected is placed face down on top of a plastic optical screen of dots to make a PMT or 'half tone'.

press, have been made from film.

CRASH shoots its own mono film. This simply means that the grid sheets containing two completed pages are placed under the process camera and photographed

onto a similar sized sheet of photo film. The result is a black and white negative. The process camera does not 'see' pale blue, so any of the grid sheets' lines used for layout, do not photograph through. Colour is done similarly,

except there are the four-colour film sheets for each page, and these are usually contacted back to make a positive image on the film (which is easier for the printers when it comes to lining up all those dots in register between the four layers).

All this film, including the advertisers' film is sent to the printer, in our case Carlisle Web Offset in Cumbria. There they take the film and stick together pages in blocks of 8. The 8 film pages then get laid on top of specially photosensitised plates and exposed to ultra violet light. The film image is transferred to the plate, and whether it is from negative or positive film, the image on the plate comes out as a positive. These flat plates are then carefully positioned on the printing press and rolled into a drum. The Harris presses are capable of printing about 30,000 copies an hour, and the pages come off the press already folded, so that several sections can be slipped one inside the other ready for stapling and final trimming.

From the printer the bundles of CRASH are delivered to carriers under instruction from Comag, the distributors of CRASH. Before the issue is printed Comag will have done all the work necessary to ensure that newtrade wholesalers have got their orders in. This is what decides the actual print run.

5 WINNING CLASSICS FROM

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BRAXX BLUFF

Our ultimate 3D program — the multi-screen mission to save the dying crawler crew trapped at Braxx Bluff. Undock and land, walk in search of the crawler, drive it through the marsh, the ruins and the desert — one track wrong and you are dead! — skim the rocky seas at top speed . . . the natives are after your energy, but caution costs time and the crew are dying. There never was a cockpit-view mission like the one to Braxx Bluff!

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FOR THE
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40 bikes. You have the best bike in the race, but that alone will not help you!

FULL THROTTLE



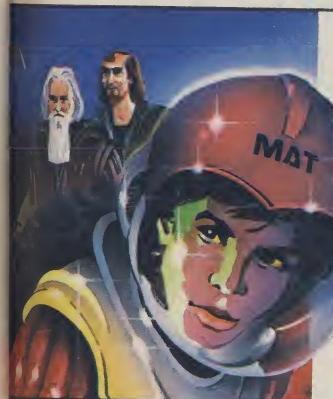
Selected titles available through larger branches of

Boots

John
Menzies

SPECTRUM

WOOLWORTH



Codename MAT

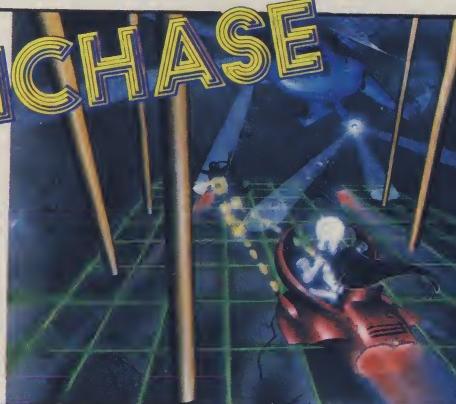
MAT is mankind's last hope! The desperate plan to place in the mind of a teenager the combined tactical skills of all the planetary leaders in the solar system. Now your mind is MAT's

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3D as you have never seen before on your Spectrum! £6.95 will put you right on the saddle of the Big Bike! Ride deep into the forest through day and night, chasing the enemy riders.

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DEATHCHASE



JUST RELEASED

JASPER

For the 48K Spectrum the most amazing arcade adventure yet, with 22 screens of stunning cartoon animated graphics seeing is believing — see the advertisement in this issue now.



Where netherbeast Grako is building his power. There's much to discover and dangers abound. Free-moving agents may help you or hinder, but might be befriended if ways can be found. The alchemist lore-work was false and a failure, but renders good service in different vein, vanquished aggressors might be your protector. In perilous places of dark, death and pain. Of devious problems and magical task, this song is a warning, a riddle, a clue. To Caraland's saviour it offers a little, So mark well its lines for the saviour is you . . .



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(M)edium, 38in
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Our fat binder doesn't just look impressive with its silver blocked CRASH logo and dark blue finish, it's also strong enough to hold a year's supply of CRASH away from your friends! And it's only £4.50 including postage and VAT!

FREE IN-DEPTH INDEX!

As Lloyd Mangram mentioned in his letters page, he's been told to get it together (we've generously provided him with a second tiny desk) and organise an Index for the 12 issues your binder will hold. The index is **absolutely FREE** to anyone who orders the binder and will be sent automatically in January.

So make sure you turn your issues into the CRASH Spectrum Software Encyclopaedia!

Be a Superior Alien with your very own CRASH T-shirt and sweatshirt!

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...more a way of life



48K Spectrum
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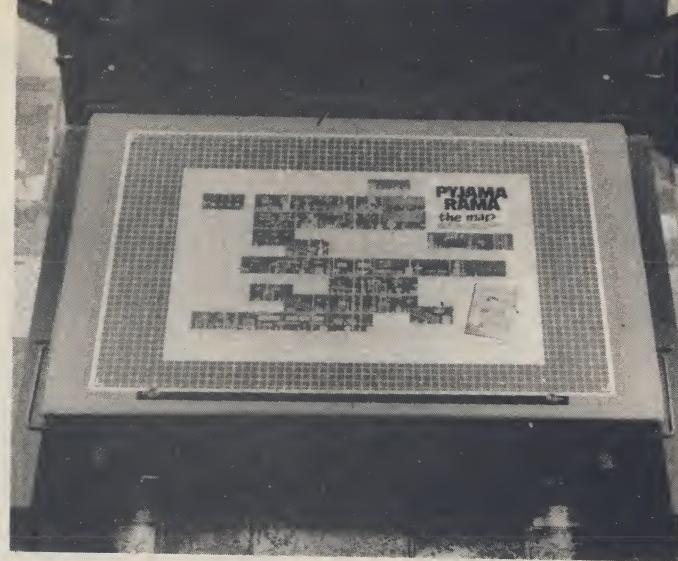
Software by **fantasy**



ADMINISTRATION

AS you can see, there is quite a lot that goes into producing an issue of CRASH every month, and this is only scratching at the surface. An important administrative area is liaising between printer and distributor to get the print run right. Put simply, magazines sell through news agents. the news agent is stocked by his local wholesaler, the wholesaler gets his copies from the distributor, who organises the whole machinery. To keep track of everything Comag uses computers extensively, not only for accounting purposes, but also for collating information relating to demand, so that publishers like CRASH can see where sales are good and where they are not so good.

But another important administrative area is internally seeing that everything happens when it should, and this includes dealing with the Hotline and competition results. Administration also has to look that we get paid for advertising, and don't get burned fingers from companies like Imagine, who can run up enormous bills without paying them. It's a fine balance.

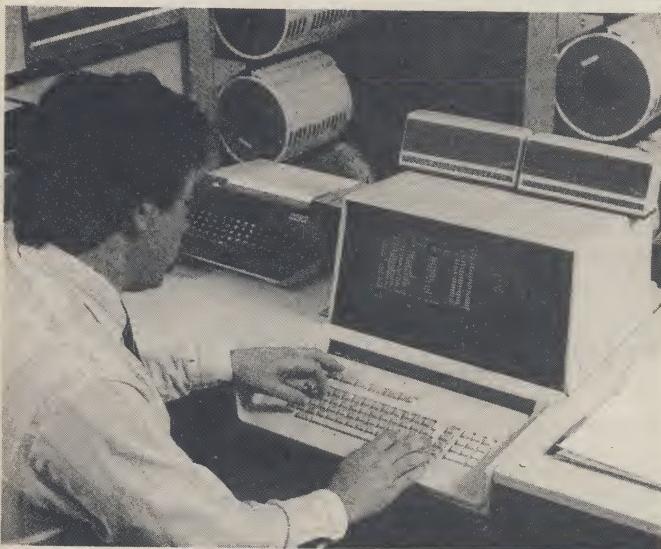


A completed spread of two pages goes under the camera to be 'negged', shot to negative film. The film used is a special rapid print lith film (it only reacts to black or white, not grey). After exposure this film is fed into a processor which develops, fixes, washes and dries the film in about 1 minute.

Negative films are often speckled with fine pinpricks caused by dust, which is impossible to avoid. These will end up as little black speckles on the printed page, so they are 'spotted' out on the negative with a pen which contains a red ink. Pages which will appear in colour then go through a second stage where the negative is contact printed to another sheet of rapid print film in the process camera to result in a positive image.



This is one of the Harris-Marinoni Web Offset Presses at Carlisle's plant in Cumbria. Left foreground is the paper tower which carries the rolls of paper (some of which can be seen on the right). Beyond the paper tower you can see the five 'heads'. Each 'head' carries two drums around which the plates are wrapped and the offset rollers which transfer the inked image to the paper. Thus both sides of the paper are printed with 8 pages on either side. The first four 'heads' are for the colour pages, the first one prints the Cyan, second prints the Magenta, third prints the Yellow and the fourth prints the Black. The fifth 'head' prints the mono only pages. Beyond the five printing units you can just see the oven through which the paper passes. This bakes the ink dry before the roll passes into the folding station (not visible) where the roll is automatically collated (16 pages of colour and 16 of mono), folded into a finished section and roughly trimmed. Later the other printed sections will be added, stitched and trimmed to the finished A4 size, bundled in 50s and delivered to Comag, distributors of CRASH.



Copies of CRASH reach the newsagents through our distributor, COMAG, one of the largest in Britain. Their sales force liaise with the news wholesalers throughout the country, two of the most important being W. H. Smith and J. Menzies. A large sales force ensures that orders for copies are kept up to the minute. The hub of the exercise is, of course, the computer which keeps tabs on copies ordered and sold.

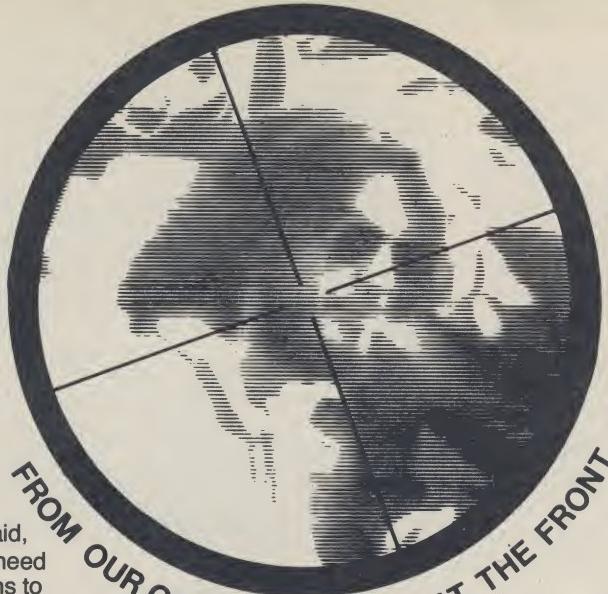
CRASH technical man is Franco Frey, seen here delving into the innards of the Spectrum + in preparation for an article.



BACK TO BED

IN only another few days this issue will be going to bed, and a new year will be arriving. There is always a rush at Christmas time to get magazines through printers who are packed to capacity, and this one has been quite a big issue. By the end of this week, as it comes to shooting the film, most CRASH staff will be repeating the old phrase - 'It's a nightmare!' But a few days after that, they'll be knuckling down to the first issue for 1985 - it never stops!

FRONT



FRONT

FROM OUR CORRESPONDENT AT THE FRONT
ANGUS RYALL

Direct response! I've finally done it! Two issues ago I bemoaned the fact that the software industry was so complacent – it seemed that no matter what I wrote or said, I couldn't get through the thick skins of the people who need to buck their ideas up. But – over the last month it seems to have worked.

First of all John Merry (of *Reichswald* fame – now of *Scorpio Gamesworld*) rang up to say that not only was *Reichswald* a brilliant game (a point which I obviously missed when reviewing it) but that my remarks about his girth were totally unfounded and libellous. Quoth he: 'This kind of petty slander makes my blood BOIL!'

Me: 'Sorry John, I was only trying to liven up a really tedious subject.'

I was hoping that John would send in a couple of 'before and after' pics as irrefutable proof, but instead he burbled on about withdrawing all *Scor-*

pio's advertising from CRASH (ho-hum, here we go again) which is probably why Roger is refusing to pay me. My apologies also go out to Argus Specialist Press, whose representatives threatened me with legal action and/or severe bodily dismemberment – I didn't really mean to say anything horrible about your wonderful magazines chaps, I was of course talking about EMAP (at this point the editor grasps me firmly round the windpipe. As I feel the life-force draining from my limbs I manage to scrawl ONLY JOKING PEOPLE, I LOVE YOU ALL)!

THE CRASH SANDINISTAS STRIKE A BLOW IN THE CITADEL OF CAPITALISM

Or, to put it another way, this month's report comes to you direct from the Ritz Hotel in Piccadilly, London. Unfortunately this does not mean that CRASH has seen the light and started treating its reviewers with the respect they deserve – we'd be lucky to get a room in the Red Cow in Ludlow. It means that I went along to the 'most prestigious award for amateur programmers' ceremony, the Cambridge Award. Funnily enough, I've only recently reviewed last year's winner and runner-up, *Battle 1917* and *War 70*, so I thought I had an idea of what to expect; but in the event I was pleasantly surprised. There were four 'finalist' games, which I've reviewed below. They can all be loosely described as 'strategy' games. But first I must tell you a little about the actual event itself, since I feel morally obliged under the freeloaders' code of honour.

As I entered the Ritz in my rainbow-striped jumper and my hardware jeans, I sensed that something was not quite

right – why wasn't I being thrown out on my ear for not wearing a tie? Well, apparently if you are going to a private function then you don't have to. Great, I thought; let's just head straight for the bar in my usual manner. Having located the 'Marie Antoinette' suite, I made the mistake of asking the barman for a drink. I say mistake because the man was fairly well blasted by the time I arrived and he could only understand the kind of 'tourist' French that the waiters *oll heff to spik*. (Was he on a percentage from Beefeater?) Anyway, I got a gin big enough to farm salmon in, topped up with about two millimetres of tonic water. Now I'm not actually that keen on neat gin, so I asked one of the floating French penguins to fetch me a bitter lemon so that I could mix it with the half-pint of gin. A minute later he returned with a slice of lemon on a stick: 'Your beet urv limon monsieur,' he said!

Things went from bad to worse. RUSSELL AND Carol from *White Dwarf* arrived, al-

eady half cut, and pounced on a QL chap, hoping to have a meaningful discussion about artificial intelligence. The man was so scared he ran away. The waiters wrested our half-empty glasses from our hands and topped them up with yet more neat gin. By now I had started to acquire a taste for neat gin, and when I was accosted by the Argus heavies I was able to fend them off with a bottle of (yes, you guessed it) gin. Julian Fuller from Micronet got very earnest with a man from Telecom about Multi-User Dungeon. I think that if ever a nuclear war is imminent I shall book myself into the Ritz, because it's the only place I know where you can get drunk in under eight minutes without even trying!

Then the buffet lunch arrived, consisting of a load of raw, minced meat on what looked like pieces of Ryvita (I have since learned that this is in fact a great delicacy known as 'Steak Diane') and some kind of Scampi – or was it Pork Balls? (The kind you get at a Chinese take-away, I mean!) Then the speeches began, greeted with thunderous applause. The sponsors of the awards were C. C. S., *Sinclair User* magazine and *Sinclair Research Ltd*. I think that most of us who'd managed to stay sober were hoping to have a word with Sir Clive about his plans for world domination and whether we'd be able to buy shares in Sinclair in 1985 (ha-ha). But alas, it was not to be because he didn't show up. Instead we had to make do with Nigel Searle who is (only) the Managing Director. He spoke about how Sinclair had been responsible for getting computing off the ground in the U. K., and how pleased they all were to be British and all that sort of thing. My associates Russell and

Carol kept making distinctly negative comments at particularly high volume, which made one feel slightly conspicuous. The Chairman of C. C. S. made a rather rambling speech and seemed a little overwhelmed by the whole situation; but then, if he had drunk as much as I had then I wouldn't be at all surprised. John Gilbert of *Sinclair User* made a punchy but totally vacuous speech about what a brilliant magazine he works for. John Sherry from Keele received the award from Nigel Searle for his program *The Prince*, and looked understandably pleased with himself since he'd just won £2,000.

THE PRINCE

Author: John Sherry
Producer: C. C. S.
Retail price: £7.95

The 1984 Cambridge Award Winner: This is a very complex program for four players which actually demands quite a lot of thought from the participants. It is reminiscent of the board



T LINE

game 'Diplomacy' in that it provides a vast amount of scope for inter-player negotiations. The game is based on Machiavelli's classic chronicle of Renaissance intrigue ('The Prince') and the task is to retrieve a secret object and word and present them to the Prince in order to become his chief adviser. Each of the players has a character on the screen who holds a certain measure of power; for example, Porcus the Merchant can lend money to other characters, while Brother Ambrose can dispense grace. The Prince will refuse to see anyone who has too many sins outstanding, and it's well nigh impossible to avoid committing the occasional sin along the way, such as sending out your henchman to 'hit' another player, or even stealing the objects themselves. Each player has a spy and a thug to help him collect information and hamper his rivals' efforts, but as there is only an initial selection of six of each type, the chances of your men being double agents is very high.

The other players are required to leave the room while you take your turn on the keyboard, and you can leave phony messages around the castle for them, steal their ladders as well as all sorts of other devious tricks. Also, the opportunities for off-screen disinformation are enormous. But one of the problems with the game is that I feel it's unreasonable to expect the players to maintain the pretence and secrecy for the amount of time it takes to play. One feature of the game, for instance, is being rendered 'incommunicado' at certain points, which means that you can't talk to the other players off-screen. I have my doubts as to whether this is particularly practical. Also, the command structure is only likely to be understood by hardened adventure freaks.

But these are only minor quibbles. The graphics and character set are very neat and very fast, and the basic strength of the game as a multi-player experience should not be missed. I haven't really had time to get to grips with *The Prince* as yet because of its great compli-

exity, not to mention the difficulty of getting four players together at the same time. But saying that, I think this one should see me through most of the winter.

Verdict: a real step forward in computer games. Makes *Sabre Wulf* look like *Atic Atac*.

INSURGENCY

Author: Nicholas Holgate
Producer: C. C. S.
Retail price: £5.95

I must confess that I really do not know how C. C. S. do it. One minute they put out a truly enthralling game such as *The Prince*, the next they try to foist the most awful garbage on us, like *Blue Riband*. Then they bounce back again with an excellent offering like *Insurgency*. I must confess to being totally baffled. *Insurgency* is a



two-player game of guerilla warfare in which one player is the Sandinistas, or the VC's, while the other is the usual fascist oppressor. There is a selection of 100 maps to play on and each contains a number of villages connected by roads, several areas of jungle (accessible to guerillas and army helicopters) and mountains (inaccessible to all). In each map the guerillas are being supplied from the North and the

army from the South. Supplies arrive by air throughout the game, but you have to be able to collect them. The army has a wider choice of units, with armour, aircraft, artillery, trucks and medics, but the guerillas have an advantage of being able to move faster through the jungle, thus remaining out of reach.

As the game progresses each side builds up a picture of the other's position by means of intelligence reports, and then they attempt to take over villages, block roads with mines and so on. The guerillas can recruit villagers and provide them with food and arms. But the army medics can improve their health, which helps to bring them back into the government fold.

The number of options available at any one time is amazingly high and I got really involved in running my Mujaheddin campaign. As with *The Prince* though, the drawback is that only one player is supposed to be at the screen at any time, which strikes me as something of a contradiction when you consider that multi-player games are supposed to bring increased sociability. The graphics also leave something to be desired (although they are well up to the usual strategy game standard – which isn't very high). All in all, however, a very impressive game, and the

author one to watch for the future.

Verdict: at £5.95 may be even better value than *The Prince*.



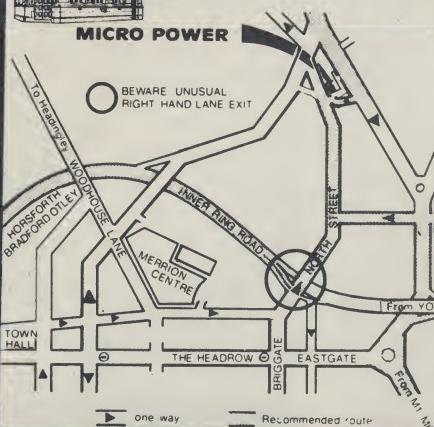
BLUE RIBAND

Author: David Bark
Producer: C. C. S.
Retail price: £5.95

Blue Riband after *The Prince* is going from the sublime to the ridiculous. In the game you have to pilot a large sea ferry around a number of islands in the shortest possible time without getting sunk. To assist you, you have radar, engineer room telegraph and wheel. Sounds tedious? It is.

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Okay, now I know that you lot out there aren't going to be particularly worried about this, but all that stuff above was in fact written for the last issue - do I hear a collective sigh of relief from all my fans? You thought that Roger had finally staggered in from the Gay Caballero in Ludlow High Street and dismissed this pathetic excuse for a Gonzo journalist - but how wrong you were! (Don't talk too soon, Gonzo - Ed) All that happened was that in my unhinged state of mind (brought on by an overdose of gin) I missed the deadline. The reason I mention this is because I very nearly missed the deadline for this issue too, on account of a close encounter with death.

As I drove into my day job (even we famous journalists have day jobs - hyperactive Derek Brewster's got about eight!) the other day, my motorbike and I parted company on the rear wing of a black Cadillac limousine (this bit's not entirely true - it was an Austin Allegro really) which I could have sworn was being driven by one of the Argus heavies - or was it someone from Domark? Anyway, your heroic correspondent flew through the air for some distance, crash landed on a cat's eye and only narrowly missed death at the hands of at least 34 juggernauts. Meanwhile my bike was elsewhere, battered and bent. Shaken, but not stirred, I crawled over to the side of the road and duly collapsed. I awoke in hospital with the thought that I had only another twelve hours to meet the CRASH deadline, so you'll have to forgive me if some of these reviews are a little less thoughtful and caring than usual; but you know how it is - better read than dead.

ATRAM

Producer: Websters
Memory required: 48K
Retail price: £19.95
Author: Miles Bozeat

Atram is billed as the 'first in a series of unique computer-aided board games' and it comes in a massive board-game type box. Atram stands for Advanced Tactical Reconnaissance and Attack Mission. The idea behind it is that it's a simulation of a military exercise carried out by the Royal Navy and US Marine Corps using exactly the same weapons - Carrier Harriers (or AV 8B's as the Yanks call 'em).

That's the author's first mistake: who wants to play a simulation of an exercise? Anyone in the games business will tell you that what the consumer wants is slaughter, blood and guts, torture, napalm, and Black Magic, with a little bit of kinky sex thrown in for the older ones. So the whole idea

of the game is suspect from the start. I suspect that Miles Bozeat has done this precisely to achieve equality of forces. But any wargamer will tell you how unnecessary that is. The objectives of the game should be changed.

For example, in a standard Avalon-Hill type board wargame which is simulating a historic campaign, the result of the game overall may be a foregone conclusion, but the objective for the players is simply for their side to do better than actually happened in history. So, in *Russian Campaign* the Germans win if they are still holding Smolensk by June 1944. The two players' sides of the board in Atram are exactly the same, which again is intended to create a more equal starting position in the game; but it tends rather to increase the feeling of unreality and pointlessness still further.

The board itself is very large and beautifully produced. It contains a thin metal sheet and the pieces are made out of that

sort of magnetic plastic that used to be on the back of L-plates. This strikes me as a strange presentation decision in view of the fact that magnets and tapes don't mix too well. Thus, if my Atram is older than a few weeks it will very likely have no program left.

When the pieces are laid out on the board the appearance is very impressive. Each side has three airfields, two carriers, five bombers, twenty fighters, five anti-aircraft batteries and five strategic targets to defend. But once you get into the actual mechanics of the game it becomes ludicrous. The computer program keeps track of the amount of fuel and weapons each unit has left, and other aspects of the unit's status. But the inputs required for each unit's movements are incredible; for example, a bombing run over an enemy airfield might require the following input to the computer: 16S4E13R2M1S2F24 ENTER.

The trouble is, that as the game progresses you find yourself having to make this kind of entry for every aircraft, and if that's 15 or more characters the amount of time it takes to make sure your fingers are correctly positioned doesn't bear thinking about. Of course, if your inputs turn out to be wrong you can find that what you're doing on the board breaks away from what's on the computer, in which case the whole game system becomes unplayable. A 10-move game of Atram can take

upwards of five hours to play, and, frankly, I don't think that the enjoyment from the game is at all worthy of that sort of time. It's a shame really, because I like the idea of computer-aided board games, but this is definitely not one to break the mould. I understand that Webster's (distributors of Boots' software) put money into this game, in which case you'll probably see it on the shelves at Boots, if nowhere else. It's the kind of game that your Dad would probably buy you for Christmas; if I were you I'd demand the money instead.

Verdict: Nice box, shame about the game.

WARZONE

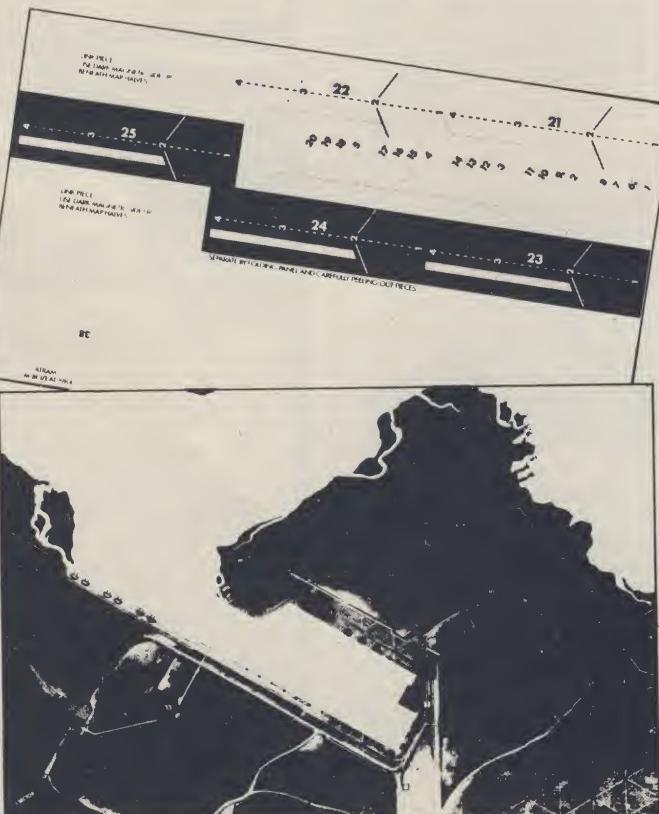
Producer: C. C. S.
Memory required: 48K
Retail price: £5.95

This is an impressive game, certainly the best wargame that C. C. S. have released so far. Even my girlfriend liked it, so it must be good! Warzone is a straight battle between the blue and red armies (the computer controlling the red armies of course) over a sector map measuring thirty units square. The player has a choice of infantry, artillery and tank units and can choose up to one hundred and fifty units in total - which is matched by the computer's side. The computer generates a new landscape for each game and deploys the units automatically.

The physical features of the map are a little on the simple side, but incorporate some nice touches such as giving longer range when firing from a hilltop. The map does not scroll, but is selected by sector - this causes some problems, as you cannot look at a sector where you do not have pieces (I suppose this may echo real-life military intelligence, but it can be very frustrating) and you also cannot fire from one sector into another, which is definitely not realistic. The program is all machine code, and responds fast, though I greatly prefer the cursor selection type of piece movement to the 'J3 to H6' type of input as found in Warzone.

Verdict: the second best computer wargame I've ever seen.

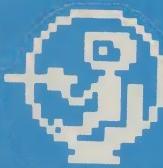
Next month (when I've got my company car!) we should have a couple more from C.C.S. Happy Christmas.



fantasy

SOFTWARE

The battle could be yours.....
.....but it won't be easy!



This is 'ZIGGY', shown above, in his exploratory capsule and is a true representation of the on-screen graphics.

THE PYRAMID

THE PYRAMID is an arcade style game which has a very adventurous feel to it.

The Pyramid contains 120 chambers on 15 levels. In order to get from one chamber to another you must fight off the indigenous aliens to collect an energised crystal which will neutralize the force field guarding the two exits.

The Pyramid is inhabited by a total of 60 weird and exotic alien types, all of which are beautifully animated. You will meet a whole variety of demons, droids, insects and monsters, with a sprinkling of the more unusual, the extra-terrestrial tweezers, galactic strawberry, cosmic claw, mutant eye, plus a whole host of entities that defy rational description. You'll no doubt invent your own nicknames.

You proceed to explore the pyramid from top to bottom with the difficulty generally increasing with the depth of level. Depending on the choice of exit from each chamber you are likely to have a different game every time you play.

Apart from the challenge of trying to achieve the highest score possible the pyramid contains a number puzzle to solve. The more chambers you successfully visit the more information is gathered to enable you to discover the secret numbers of the pyramid. The puzzle won't take you days to solve, it will probably take you a few months.

DOOMSDAY CASTLE

DOOMSDAY CASTLE consists of a labyrinth of 74 complexly interconnected Halls and Passages where you will meet a whole host of adversaries serving the infinitely evil Scarthax, the Garthrogs, the Orphacs, the phenomenally nasty Googly Bird and the Urks which manifest themselves in over fifty unbelievably weird and wonderful guises.

Scarthax has scoured the Universe to bring together the six ancient stones of lifeforce. United in Doomsday Castle they are being used to wield an irresistible power over the cosmos, emanating waves of corruption through every galaxy.

To save the Universe, you must battle your way through the Castle to find and collect the six stones and use their force against Scarthax to destroy Doomsday Castle, hopefully escaping yourself before the final cataclysmic explosion.

The task is not easy (saving the Universe never is!) and it will take you many games to unfold the structure of Doomsday Castle and discover the locations of the ancient stones.

The addictive arcade style action will keep you coming back to play but the overall challenge should still keep you occupied for months.

FANTASY SOFTWARE is available from W.H.SMITHS, JOHN MENZIES, BOOTS, LASKYS, GREENS, RUMBELOWS, SPECTRUM GROUP, COMPUTERS FOR ALL and all other good software retailers.

The Pyramid at £5.50 and Doomsday Castle at £6.50 from

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A

Fast-furious racing in this Arcade game for the Spectrum. 'Pontoon' on side B free!



B

Funny goings-on deep in a mine. Can you escape the evil in its depths? "Original and fun . . . dexterity needed . . . strategy is also involved" — Games Computing.



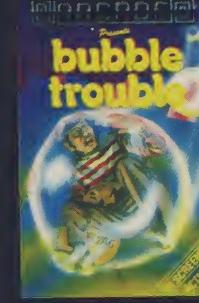
C

Defuse a bomb hidden on the complex planet, Lattica, before it blows!! "...action packed game . . . addictive" — Sinclair user.



D

The mobs out to get ya' in this no-holds-barred 25 screen, action-packed game. "Tricky and highly entertaining" — Personal Computing News.



E

50 different screens of mayhem. "A fun game for all ages . . . which I thoroughly enjoyed." — Home Computing Weekly.

fantasy

SOFTWARE

We're sorry you've had to wait so long for our first new release of 1984 but your patience will be well rewarded.

From Bob Hamilton, author of 'The Pyramid' and 'Doomsday Castle' we present BEAKY AND THE EGGSNATCHERS and introduce Beaky, our new star of the video-game screen.

(Ziggy is having a well earned rest!)

Beaky belongs to
the family of
Andromedan Armed
Condors, the rare
goggled variety.

The numbers of his species are dwindling fast because of their rather foolish choice of breeding ground, on the planet of Crackit. This unfortunately happens to be the home of a particularly evil band of creatures known collectively as the Eggsnatchers. Their sole malicious intent in life is to extinctify Beaky's species by stealing or destroying the eggs by any foul means available.

BEAKY and the Egg Snatchers

for
Spectrum 48K
and
Commodore 64

Your objective is to try and brood, hatch out and rear as many little Beakys as possible through 12 different screens of formidable but delightful arcade action.

FANTASY SOFTWARE is available from W.H.SMITHS, JOHN MENZIES, BOOTS, WOOLWORTHS, LASKYS, GREENS, RUMBELLOWS, SPECTRUM GROUP and all other good software retailers.

Beaky and the Eggsnatchers is available for 48K Spectrum and Commodore 64 at £6.50 on cassette or on disk for the Commodore 64 at £9.50 from

FANTASY SOFTWARE, FAUCONBERG LODGE, 27A ST GEORGES ROAD, CHELTENHAM, GLOS GL50 3DT.
despatched by return first class post together with free membership of the Fantasy Micro Club.

Trade Enquiries welcome – telephone 0242-583661.



20 GAMES AND 10 UTILITIES TO BE WON!!

Here's a chance to win the complementary graphics utility to GILSOFT'S amazing *THE QUILL*. We have 10 copies of *THE ILLUSTRATOR* and 10 copies each of the two latest adventure releases, *MADCAP MANOR* and *THE HOLLOW* to give away!



The Quill has undoubtedly proved to be one of the most successful utilities ever written, allowing anyone with the imagination to write machine code adventures, but its graphics capability is very limited. Now GILSOFT have released a new program to enhance *The Quill*. *The Illustrator* is intended to be used with *The Quill* to provide full scale graphics for Quilled adventures. *Madcap Manor* and *The Hollow* are two more Quilled adventures in the tradition of the Gold Collection. *Madcap Manor* is by the duo of Paul Styles and Brian Jenkinson, who wrote *Mindbender*, and *The Hollow* is from the quill of Tom Davis who was responsible for Gilsoft's devious *Africa Gardens*.

10 lucky people will each win these three programs from GILSOFT, and to have a chance of doing so, CRASH has devised a wholly original type of competition, one that is so difficult, only a truly clever adventurer could possibly undertake it. Below are two pictures which look identical (sounds familiar), but they're not quite the same. Examine the pictures (from *Madcap Manor*) and you may spot 10 differences between them. Circle the differences in biro on the picture in the form (or photocopy it if you prefer), fill in the details and send it to: GILSOFT COMPETITION, CRASH MAGAZINE, PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB. Entries must reach us no later than first post January 18 1985



Name.....
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fantasy

Backpacking this year . . .

fantasy
SOFTWARE



THE
PYRAMID

For 48K
Spectrum

fantasy
SOFTWARE



JOURNEY TO THE
SHADOW

For 48K
Spectrum

fantasy
SOFTWARE



BEAKY
and the Egg
Snatchers

For 48K
Spectrum

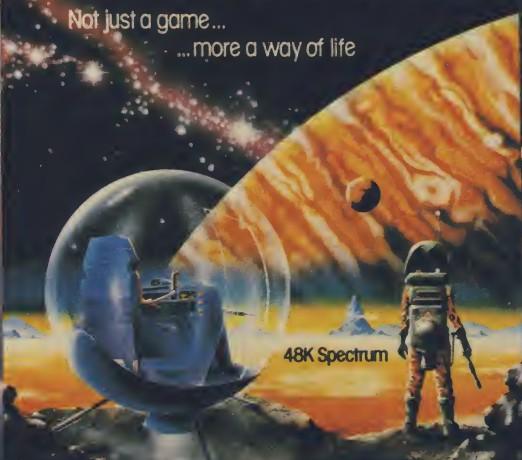
fantasy
SOFTWARE



For 48K
Spectrum

BACKPACKERS
GUIDE TO THE UNIVERSE PART 1

Not just a game ...
... more a way of life



48K Spectrum

Software by fantasy

. . . don't leave home without us

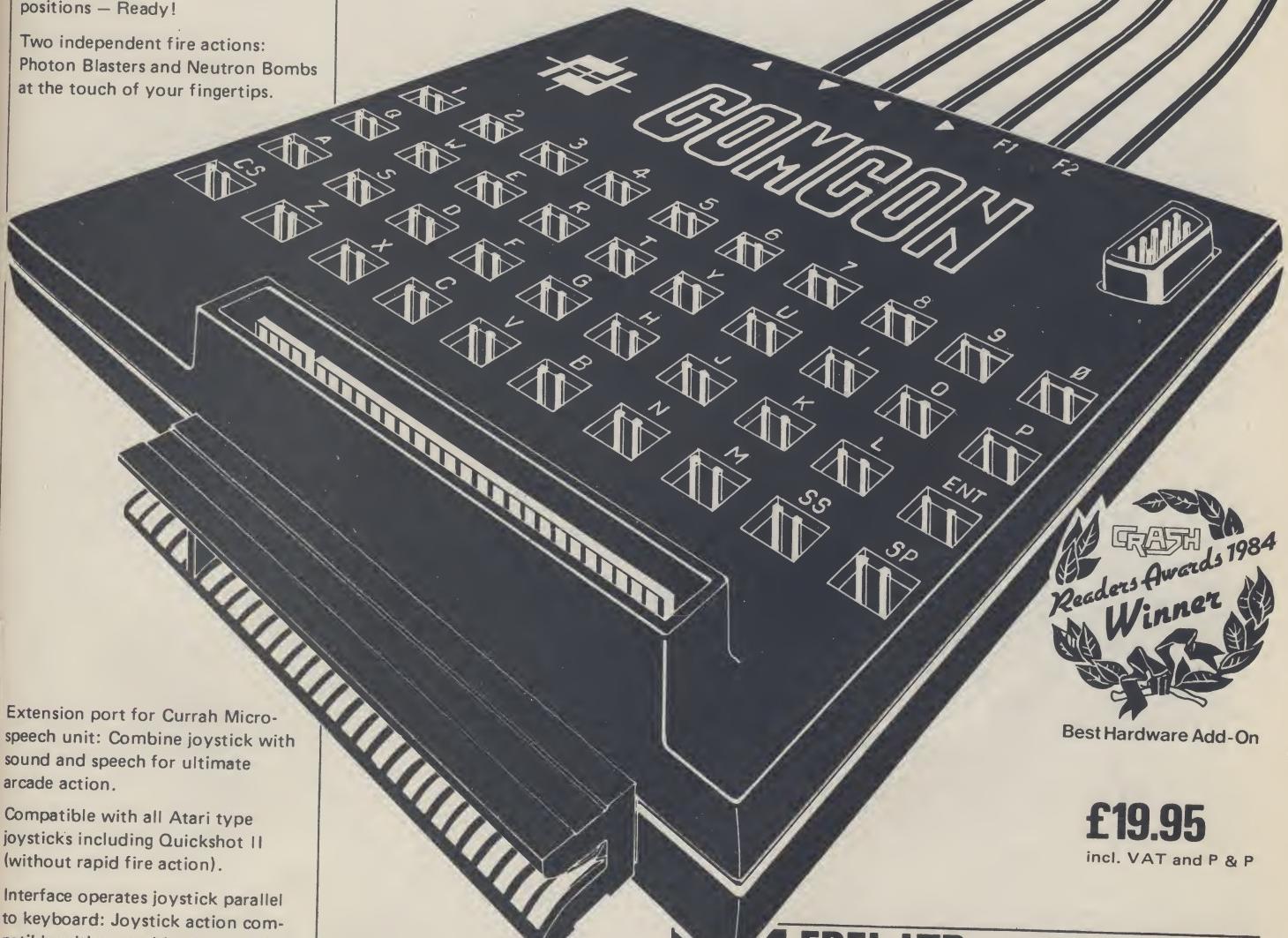
*The Pyramid, Beaky and the Eggsnatchers available on CBM 64

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COMCON

KERRASH! NEWS



THE 14TH ZX MICROFAIR

THE 14TH ZX MICROFAIR was held at Ally Pally on the weekend of 17/18th November.

There was initially a threat of it being overshadowed by the MICROMARKET which originally was scheduled to be held at Ally Pally, but was then moved to the Wembley Conference Centre. The result was a very poor attendance in Wembley and the usual crowd gathering at the ZX FAIR—old habits die slowly (which should please Mike Johnston

the organiser). Less positive was the line-up of software houses. Very few of the biggies showed up, most stands being occupied by high street dealers and smaller software houses. Amongst the noteworthy exceptions were DK'tronics with their usual 5th Avenue stand, Automata with their entertaining fairground activities, Fantasy, Microsphere and CCS. Fantasy were displaying their latest hit *Backpackers Guide to the Universe*, priced at £7.50, which has generated hefty sales figures within the first week of its launch, as Fantasy boss Paul Dyer told me with pleasure. Also just recently out is Drive In, which

is another shoot'em up space arcade game selling at £5.50. CCS have no less than 12 new titles lined up. The Prince is a role playing strategy game which has won the Cambridge Award. It costs £7.95. Other strategy games all priced at £5.95 are War Zone, Superpower, Air Defence and Insurgency. Blue Riband is an arcade style strategy game, while Barrow Quest and Mission 1942 cater for the adventure players, again at £5.95 each. Tomb of Akhenaten and Nuke Lear are further games in the 'Charlie Charlie Sugar' budget range and are both arcade games costing £2.99 each. Realtime Softwares stand

was being run over by arcade freaks trying to get a go at Starstrike, the ultimate Star War game with excellent 3D-graphics (price £5.95). We are being flooded with mail orders and distributor enquiries. Realtime Softwares Andrew Onions said elated. Softstone was making itself heard above the din of the crowd with the excellent tune of Fahrenheit 3000 written by Perfection Softwares Timothy Williams. A sequel is already in preparation. Odyssey 1, Force Fighter and Turtle Timewarp are now being marketed as budget games for £2.99 each. Also available from Softstone is American

I·N·P·U·T



Realtime's IAN OLIVER & ANDREW ONIONS



ANDREW ONIONS

Football at £6.95 and **Word Seeker** and **Super Bandit** as a combo for £2.99.

Softstones Tony Knight told me that two further Spectrum arcade/strategy games are being developed. One is based on the **Milk Tray TV** ad and the other on the **Dune** novel and soon to be released film, with the player being able to choose more arcade or strategy content during play. At **Red Shift's** stand I met Chris Shafte, who has moved

away from Microdealer UK to become Sales and Marketing Director of **Red Shift** and seems to be doing an excellent job of it. Just released is **City of Dead**, a role playing adventure game, and in preparation is the release of **The Tripods** based on the popular BBC series. It would appear more and more games players are turning to more intelligent and demanding strategy games and **Red Shift** has an

interesting range. **Apocalypse** is now available as a complete set with 14 different scenarios. **Stardreams** appeared in force and were displaying their new adventure game **The Sandman Cometh** priced at £10.95, the presentation including a video ad of the game—a novel approach in this market. After their excellent adventure **Waydor** (price £7.50) **IMS Software** are already releasing **Ghoulies** (nothing to do with football), which hopefully will send you shivers down your spine (price £7.50). **William Stuart** was demonstrating his speech recognition unit with a lovely Meccano bridge crane, controlling it solely with speech commands and this above the roar of the crowd. The unit will recognise up to ten different commands at any one time, but the library of words can be extended and stored. His new product is **Lifeline**, a self analysis career counselling program, an interesting piece of software which no doubt **CRASH** will be reviewing shortly. The price is £14.95. **Microsphere** were dressed for the occasion in proper school fashion for their excellent **Skooldaze** (price £5.95). On display was also **Skyranger**, which is definitely not school material, but should nonetheless tax your intellect (price £5.95). Seeing an **Act Apricot Xi** at the ZX Fair is rather unusual, but upon investigation the reason becomes apparent. **Steve Betts Software** offers **Crass 80**, a Z80 assembler for the Act Apricot to produce machine code to run on the Spectrum with a ZX Interface 1 and Microdrive or any other Z80 system with an RS 232 port. Serious machine code programmers will agree on the many advantages of assembling the code on a separate computer such as the Apricot, but required is obviously a lot of capital with an Apricot and **Crass 80**, which includes a 3.5 inch floppy disc, a microdrive cartridge and a User Manual and is priced at £95. Among the many add-on keyboards appearing on the market is the **MO184** from **Mancomp Ltd**. Costing £54.95 it has very legible keys, includes extended mode, delete and cursor keys and a numeric pad and provides space for the fully housed ZX Interface 1



N·E·W·S I·N·P

and the ZX power supply. Despite the emergence of the Spectrum Plus the market for add-on keyboards should continue for all the many existing Spectrum owners and for those not to keen on the soggy Spectrum Plus key action. Several floppy disc interfaces are already in existence for the Spectrum, but none as complete as the surprise Timex FDD System displayed by Micromatic. It offers a complete operating system with disc and communications facility for the Spectrum and at £225.00

+VAT is competitively priced. The CP/M upgrade option should make it an interesting proposition for small business owners. On display was also a **Spectrum keyboard upgrade** from Timex with excellent key travel and feel. For the assembly it is necessary to remove the glued metal keyboard mask and the rubber membrane pad from the Spectrum. The new keyboard mechanism is fitted in place and secured with screws. At £14.95 this must be the most cost effective way to improve the standard

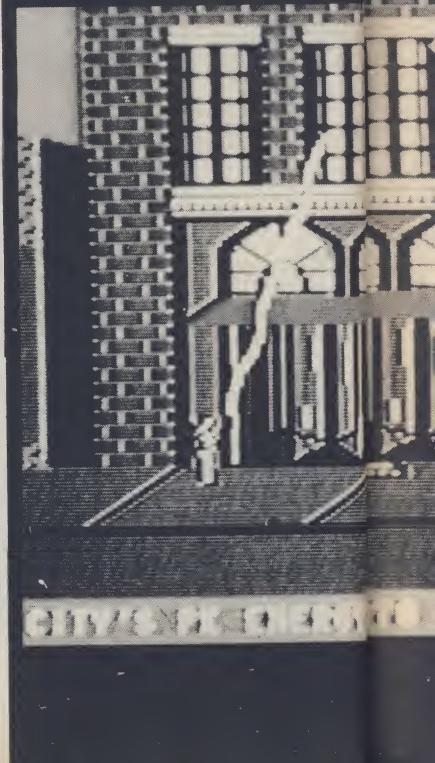
Spectrum keyboard. The ZX Microfair may not be to everybody's liking and many in the industry believe the market has outgrown this type of a fair. The show however does give a chance to the end user of assessing the entire software and peripherals market under one roof and many newly formed software houses or peripherals manufacturers can get firsthand market experience without spending a fortune as with many other shows.



I'M AFRAID OF NO GHOSTS... .

No doubt one of the main attractions of the Christmas holidays will be a visit to the cinema to see the new movie *Ghostbusters* – and if it isn't on your list, write it down! It opened on the 7th December at 200 cinemas, so there should be one near you. *Ghostbusters* has become one of the all time top grossers in the States, where it has even beaten the whizz kid Stephen Spielberg at the box office. The film tells the story of three off-beat parapsychologists in New York who are thrown out of the university where they teach and so set up a lunatic business to fight paranormal occurrences which are plaguing the city. The ghosts come in all shapes, colours and sizes. Fortunately for business, the city is suffering a veritable plague of slimy, food-gobbling greenies, but bigger and fowler things are on the wing. The film

The Ghostbusters prepare to zap a slimy greenie – from the C64 version.



culminates in a hysterical showdown with forces from another plane which threaten the very existence of the world.

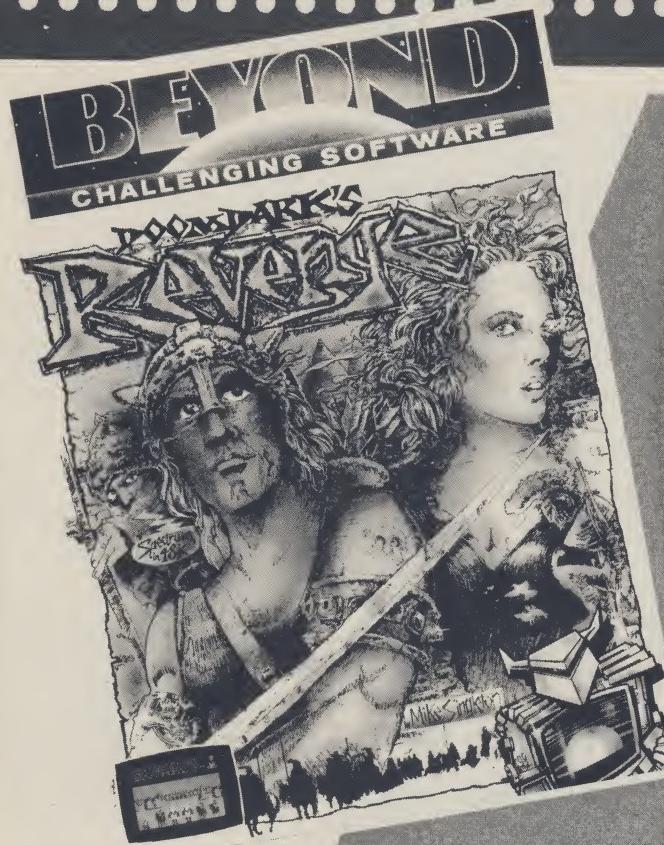
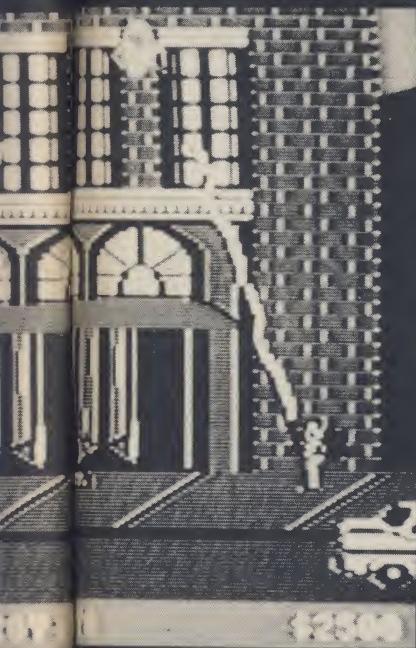
What makes *Ghostbusters* a great film is the sense of humour and the special effects.

But more unusually, this is the first time that the movie has been preceded by the computer game. Activision acquired the exclusive worldwide rights to develop and market the game version of *Ghostbusters* from Columbia Pictures. David Crane of *Pitfall I* (and II) and *Decathlon* fame, has been responsible for the design of the game.

The computer game follows the story line of the film quite closely. The object is to avert a ghost invasion of New York and make sure your Ghostbusters survive long enough for the final dramatic showdown at the 'Temple of Zuul'.

You have all sorts of amazing and sophisticated gadgets to help your task like Image Intensifiers, Energy Detectors, Marshmallow Sensor (The Marshmallow man is 100 feet high), Ghost Vacuum, Ghost Traps and a Laser Confinement System. It's up to you to search for, catch and store the 'slimer' and 'roamer' through the streets and buildings of New York.

Ghostbusters for the 48K Spectrum retails at £9.99 and is also available for the CBM64.



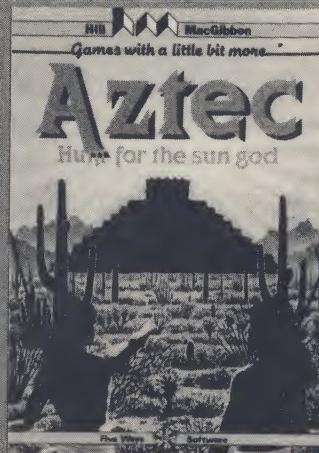
DOOMDARK'S REVENGE

Slightly later than expected, Beyond Software's follow up to their spectacularly successful *Lords of Midnight* has just been released at the time of writing. *Doomdark's Revenge* is as lavishly packaged in an almost identical box to its predecessor. Much too late to be able to review in this issue, a copy has been rushed to Derek Brewster, who will be giving his comments next month. Meanwhile, for those who have not yet seen it (can there be any), here is the cover to gaze upon. *Doomdark's Revenge* retails for £9.95 and is for the 48K Spectrum.

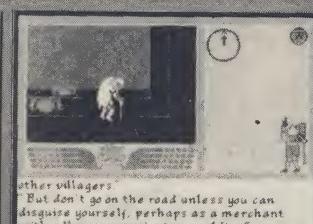
MacGIBBON'S QUEST

Two further adventure games have been launched by Hill MacGibbon, the company with the 'Games to stretch the mind' (sounds painful!) slogan. Both are on sale for £7.95 each. *Aztec - Hunt for the Sun God* is a mystical and complex game which challenges the adventurer to interpret a strange and disturbing dream. You wander incognito through a South American landscape of forests, cities and volcanic mountains, encountering both problems and clues along the way. The adventurer's task is to make for an unpredictable volcanic mountain, there to contend with the gods and find out what has happened to his village and strangely enough, the sun. *Aztec* comes complete with a full-colour poster and instruction booklet.

In *King Arthur's Quest* the player assumes the role of King Arthur, striving to free his country from the realm of an icy mist, issued by the ice-dragon. The dragon is manipulated by the evil Morgana Le Fey, and the mist is slowly bringing the entire land to its feet in a lingering, frozen despair.



King Arthur lives up to his reputation by hacking his way past dragons, witches and unicorns and skirting over frozen lakes. There are also magic books to be ploughed through and difficult spells and secrets to overcome – all in the name of seeking clues to the location of Lancelot and Merlin. Once these two have been found Arthur can set about liberating the land from Morgana's evil spell, thus fulfilling the quest. The game includes a full-colour poster and detailed instruction booklet.



KOKOTONI WALLY

Wally Week, star of Mikro-Gen's *Automania* and *Pyjamarama* is upset by reports that he's been overtaken in the popularity stakes by arch rival **Kokotoni Wilf**. Elite Software has announced that *Kokotoni Wilf* has taken the title of best ever adventure arcade game from SP's *Jet Set Willy*. But a defiant Wally Week claims that *Pyjamarama* is better than either of these two programs and he is willing to go to the polls to prove his point. He has issued a direct challenge to Wilf by inviting CRASH readers to send in their votes and determine who is really the public's favourite.



Banned from driving, Wally Week and the Mikro-Gen Rally team prepare for fistcuffs with Kokotoni Wilf and his band of time travellers.

FLYING GOLD FOR HEWSON

Hewson Consultants have rewarded the talents of their microcomputer writer **Mike Male** with a gold cassette after sales of his two programs topped the 100,000 mark.

Mike, author of *Heathrow ATC* and *Night Flite 2*, received the award from Hewson's Managing Director **Andrew Hewson**. Mike is himself an air traffic controller at London's Heathrow Airport, as well as a keen amateur pilot, and it was this experience which enabled him to bring such a convincing element of realism to his

Yawn, that's if anyone is really bothered.

Meanwhile, the ever-active Wally has moved into the field of motor-racing sponsorship, following his rise to computer fame. **Mikro-Gen Cars** are featuring Wally as their logo, so don't be surprised if you see him whizzing past at 100 mph in the Grand Prix at Brand's Hatch this month. But Wally hasn't got it all his own way: 'I really wanted to drive,' he laments. 'But it was felt that for the health and safety of the other drivers I should only appear in a sponsorship and advertising capacity.' Never mind, perhaps Mikro-Gen will come up with a new game featuring Wally Week on wheels...

task of re-writing the game almost from scratch before it's available for distribution in Holland.

In the July issue of CRASH we reported that *Fantasia Diamond* had won the

esteemed **Le prix du Meilleur Scenario** in France. If the game takes off in the land of tulips and Edam there could be yet more acclaim awaiting Kim Topley (and yet more money for Hewson's).

Andrew Hewson (left) presents programmer Mike Males with the gold cassette for sales of 100,000 copies of his flight and air traffic control simulations.



THE SOFT TOUCH

Softstone Ltd are looking to add yet another boost to their up and coming reputation with the release of several new games over Christmas and the New Year.

With offerings like *Turtle Timewarp*, *Odyssey 1* and *Fire Fighter* under their belts (originally marketed by **Perfection Software**), Softstone have every reason to be confident. This London-based company, originally begun in Wales, only came into operation earlier this year, but already they have progressed to become a contender in the field of micro games creating and marketing, with growing operations both at home and abroad.

Perfection Software were one of the first companies to be taken under the Softstone wing, and since then the amalgamation has gone from strength to strength.

This Christmas sees the release of *Super Bandit* and *Word Seeker*, while over the next few months several new, more sophisticated games will be prepared for general release. These will include a graphic adventure for the Commodore 64 and an arcade game based around a much-loved TV advertising sequence.

PRESENTING THE



Just in time for Christmas, Incentive Software are distributing a presentation gift set of the popular *Ket Trilogy* adventure classic.

The *Ket Trilogy* is a fantasy adventure in which you have to fulfill the quest and liberate Ket from Vran and his evil followers. The game gets harder the more stages you complete. Should you succeed in completing the entire mission, Incentive will label you **Britain's Best Adventurer** as well as allowing you a video recorder of their choice to the value of £400.

The cost for the gift pack – containing *The Mountains of Ket*, *The Temple of Vran* and *The Final Mission* is £12.95, a considerable saving on purchasing the games individually. Naturally, the only way to win is by scoring 100 on each game, thus revealing the three parts of Ket's secret message. An explanatory booklet on how to play is included with each game.

NEW FAST REPAIR SERVICE!

Mending a broken down computer after the guarantee has expired can be quite a headache. That's why a company called Computer-fix of Camberley, Surrey, has stepped in to ease worry.

Computer-fix has set up a considerable network of 500 dealers around the country, each of whom guarantees that your computer will be mended and on the go again within 48 hours of receipt.

The quick fire service is all down to ACUMEN (Advanced Computer Memory Tester), which can spotlight malfunctions far quicker than a skilled computer engineer, thus saving both time and money.

A spokesman for Computer-fix said that he was very pleased with the way the repair scheme was going. He described the response as 'Terrific,' with hundreds of computers being brought in for servicing daily.

Computer-fix are at Albany Park Estate, Frimley Road, Camberley, Surrey GU15 2PL. Telephone 0276 66266.

CRASH will be publishing a list of the main Computer-fix dealers in the next issue.

TIME FOR BED...

Good news for all you Zebedee fans out there who have never quite forgiven Auntie Beeb for taking *Magic Roundabout* off the air. C. R. L. have issued a computer version of the popular childrens' TV programme for the Spectrum 48K.

The Magic Roundabout retails at £6.95 and features all the usual familiar characters that we know and love so well. The game revolves around the attempts of Dougal to construct a sugar house, while the other characters do their best to eat up the sugar cubes he requires. In the game, as in life, sugar equals energy. But don't worry folks - nobody gets killed in this game, and of course those reassuring words appear at the end: Time for bed!

PROTOCOL 4s RECALLED

A. G. F. Hardware have an important message for customers who may have purchased a **Protocol 4 joystick interface**: some of these have sub-specification pre-production units, which means that they have an erratic or unreliable Kempston operation mode.

If you possess a copy of the Protocol 4 Interface the way to check its reliability is to type in the following program line with the interface attached to the Spectrum. Make sure the mode switch is in the 'down' position and that you have inserted the 'Kempston' card. Then print: IN 31 and press **ENTER**. If anything other than Ø is printed, A. G. F. will personally replace the unit free of charge. The address for returns is: A. G. F. Hardware, Freepost, Bognor Regis, West Sussex PO22 9BY.

BIG C. C. S. CHRISTMAS LAUNCH

C. C. S. have released another four games for the Spectrum 48K. *Air Defence* is a wargame in which the player takes the role of Commander of Air Defences with 14 squadrons under his command. The aim is to fend off the successive waves of attack from enemy aircraft who attempt to demolish your industries and HQ. But watch out; the enemy have fighter escorts!

Superpower is a strategy game for 1-6 players, each of them running the affairs of the Intelligence Agency of a major world power. Players possess various assets in a nine-country Third World continent, and must double-deal with each other in an attempt to increase their profits from these assets using that most veritable of all weapons, political interference. The familiar ingredients of warmongering, assassination and engineering coups are at the hands of each player.

Barrowquest is an adventure game written by

John Sherry before he came to fame with *The Prince*. The player is in a large terrain inhabited by monsters who insist on attacking him from all sides without reprieve. The only escape is when burrows appear (marked with skulls). The player can enter these burrows, which form a maze of tunnels, also inhabited by monsters. The object of the game is to locate the power gem 'Sartrak's Stone' and destroy the Black Wizard 'Grimblast'.

The Staff of Zaranol is an adventure game where the player becomes the Sorcerer's apprentice and releases an evil demon in his master's absence. The demon has to be banished before the master returns, and this can only be achieved by properly interpreting a series of clues. They are located in 45 different locations and each object has a specific purpose. Mistakes can be fatal, so you'll need to tread carefully, but there are times when speed is essential and you'll have to keep your wits about you.

All four games are on sale for £5.95 each.

C. C. S. have also released a further two games in their 'Charlie Charlie Sugar' budget range for the Spectrum 48K.

Nuke Lear is a high-speed arcade game in which you have to ensure that 'Nuke' (manager of the Radioactive Waste Depository) directs the incoming drums of radioactive waste into their allocated positions at the end of the blue roads. Nuke can change the direction of the rolling drums by climbing to one of the upper floors and standing in the way, thus illegally positioning the drum. If too many drums are illegally positioned then the radioactivity accumulates and - BANG!

Tomb of Akhenaten is an arcade action game where the player has to search the labyrinth of tunnels within a pyramid for Akhenaten's tomb. The tomb was believed to be desecrated soon after his burial, but according to the local inhabitants it's still intact and just waiting to be discovered. Spiders, poisonous asps and the 'Spirit of the Labyrinth' conspire to make your search a less than pleasant one.

Both games are available for £2.99 each.

PLUS HITS THE SHOPS

The new Spectrum + has arrived on the shelves of **T. B. D. Computers**, the second only official distributors of Sinclair software and hardware in the country.

T. B. D. is part of one of the biggest and best record, cassette and video distributors **Terry Blood Distribution Ltd.** The Stoke-on-Trent based company is ready and waiting to deliver the Spectrum + anywhere in Britain within 24 hours. 'We are ready to go!' comments T. B. D.'s Sales and Marketing Director **Joe Woods** enthusiastically.

The Spectrum + (with 48K RAM) accommodates all the usual Spectrum software and peripherals and features the full function 'QL type' keyboard. Like the 48K it comes complete with a free software six-pack.

PREPARE TO DIVE!

Magasub Command is the latest release from **N. T. D. Software**, on sale for just £2.99. This is the newest in a series of popular games for the Spectrum, and features over 300 levels of machine code action.

The player assumes the role of the captain of the world's most advanced submarine - the Megasub - and the nerve-wracking object is to fend off attacks on the North Atlantic frontiers by enemy fighters and bombers. The submarine is equipped with the latest Neutron laser, but it's one of the hazards of the game that (like its deep space counterparts) the laser is prone to overheating, and it requires a cool and level-headed captain to put matters right. (That's where you come in!) Of course, if you can't stand the heat and the going gets too tough you can always crash-dive - provided there's sufficient air supply.

Megasub Command can be played via the keyboard or on any Kempston compatible joystick.



WIN A COPY OF THIS EXCITING NEW 3D SOCCER SIMULATION!!

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ocean

No need to worry if your home team's pitch is waterlogged or frozen over this winter - OCEAN have brought out **MATCH DAY** (retail price £7.95), a 3D soccer simulation arcade game that you can play in the comfort of your own home.

MATCH DAY features animated players, a marked out soccer pitch and bouncing ball. The camera scans the action from a bird's-eye-view, so you have no trouble positioning your team. The game can be played versus the computer, or as a knock-out competition for up to eight players, each with his or her own team. All the skills of dribbling, tackling, passing, heading and trapping can be performed, and the fixture can be either a single match or a lengthy cup competition. Extra-time facilities are available should a match end up in a draw. The accompanying music is from the BBC TV programme 'Match of the Day'.

CRASH is offering 50 copies of **Match Day** to the first 50 people drawn from the bag, who correctly answer the following questions about soccer. Your answers should be written down on a postcard (or the back of a sealed envelope) and sent to: **MATCH DAY COMPETITION, CRASH MAGAZINE, PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB** to arrive no later than first post January 18 1985, and please don't forget to include your name and address on a postcard!

MATCH DAY COMPETITION

1. Which Football League club plays at Elland Road?
2. What is the name of the controversial ex-manager of Manchester United?
3. Who presents 'Match of the Day' on BBC1?
4. Birmingham is the home of Birmingham City FC. But which other midland club also has its home in the second city?
5. Can you name the manager of Liverpool before Fagan?

MATCH PAY



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MUGSY gives a totally new direction for thrill seekers.
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Cross was almost there, he'd found the fuel cells he needed, he knew where the big ship was hidden and he had the time to get there, rescue his passengers and get them away back to Earth. But then there was Karrian...

THE TERMINAL MAN





STORY BY KELVIN GOSNELL®

DRAWN BY OLIVER FREY®





Continued on page 191

EXPLORING THE SENSE OF SOUND!

3 Channel Sound Synthesizer

Any microcomputer is capable of manufacturing sound, however in order to produce a single octave 'C' note with a frequency of 8372 Hz the signal needs attention over 16,000 times per second.

To produce software capable of performing just this one task would be difficult if not impossible, especially when you consider that to produce arcade type sound effects require even greater attention. The production of these sounds effects without the constant attention of the processor is now possible thanks to the AY Sound Chip, its flexibility makes it essential for a wide range of applications including music synthesis and sound effects generation, continuing the monitoring and production of sound after the initial command. More often than not realistic sounds require more than one effect and this function is provided by 3 independently controlled channels, as an example, compare the sound produced by the single note of C, with that produced by the chord 'C' and you will know just what I mean, likewise producing the sound of an explosion using all 3 channels gives games a totally new dimension.

Add to this the ability to alter the pitch tone and shape of the sound you have produced and it's flexibility is unlimited. In simple terms, imagine the note you have produced as a calm sea, by altering the pitch and shape you can produce waves, the top of the wave corresponds with the maximum volume and pitch of the note, which like the wave itself rises and falls.

Free Music Designer Cassette Worth £9.95

Beethoven to Bowie – Starwars to Splats.

The screen display shows all functions. Simply move the cursor along the keyboard, select the desired note by pressing the fire button and the note selected then appears on the screen.

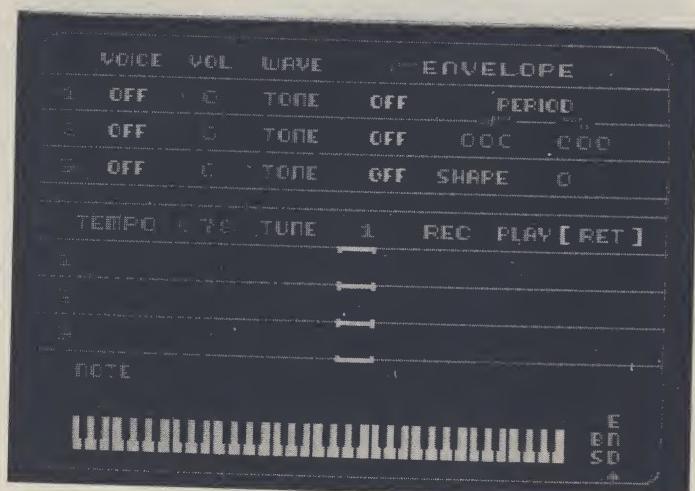
You can vary the tempo/volume and when 'played' the notes simultaneously scroll across the screen. 10 Envelope controls mean that once created, tunes and sounds can be subtly altered given varying attack and decay times to create futuristic music and sound effects. You can record and save up to three different tunes and amend each one as necessary. The dk'tronics Sound Synthesizer is suitable for both Spectrum and Spectrum + models and is guaranteed to give you hours of fun and would make an ideal Christmas gift, you never know you might turn to be another Stevie Wonder.

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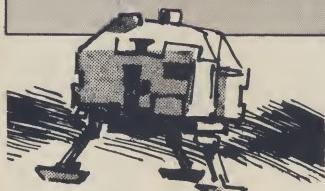
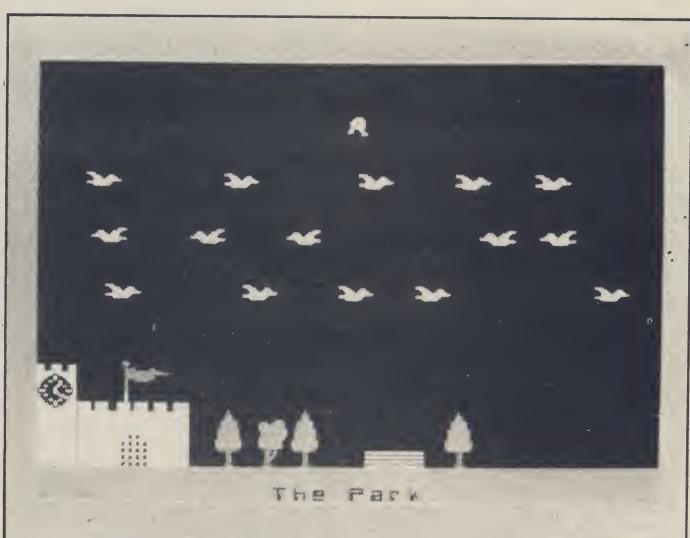
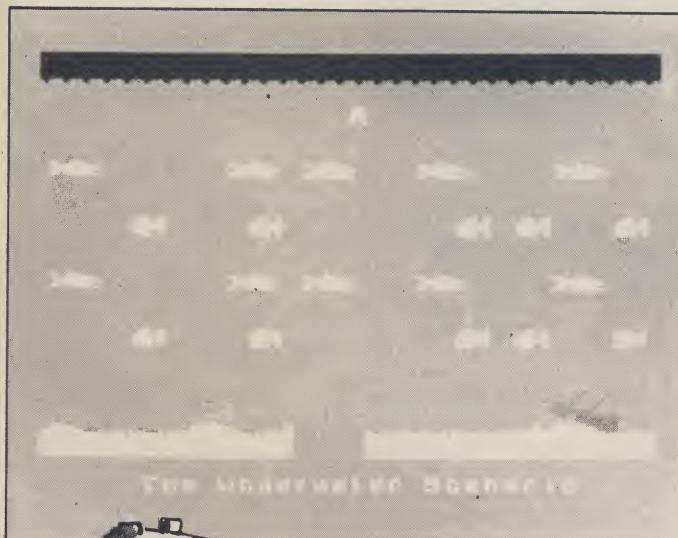
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LOONY LANDER

Producer: Software Super Savers

Memory required: 48K

Retail price: £2.99

Language: machine code

Author: Nicholas Williams & Robert Maynard

Loony Lander is a title that describes the game type quite well – indeed a ‘Lunar Lander’ game. What makes this one different is that each screen is different graphically and has different hazards for the shuttle craft to descend through. Eleven screens in all, each with a different title. On the first – The Research station, layers of clouds bar the route down to the landing pad. Then there’s the Subway, with tube trains crossing from tunnels, The Oasis, Underwater Scenario, Park, Arcade Machine, Cassandra Crossing, Hell, The Worm’s Hide Out, Pacman’s Revenge and the Cloning factory – all make an appearance.

In every other respect, the game plays quite traditionally, with you guiding the shuttle down through the transverse hazards to land softly on a pad.

CRITICISM

- ‘This is the hardest ‘Lander’ type game I have ever played.’

The ship has so much ‘inertia’ that control is really difficult. A challenge up to a point, but this one goes a bit beyond the point. Generally this game is average, but if you are a ‘Lander’ expert then try it!

● ‘The thing that makes this game fail is that you cannot respond quickly enough to the directing instructions. I’m sure that with hours of practice one could, perhaps, become quite good. The only sound is an apologetic burp when you die. Colours are bright and cheerful. The keys don’t respond very well, though, and this makes navigation almost impossible.’

● ‘This game is one of the cheapies on the market produced by SSS (really Software Projects), but being cheap won’t be able to sell it because the game is of extremely low quality. WHAT’S SURPRISING (and rather sad) is that the graphics in this (and some of the other SSS games) are designed to a high standard, usually smooth and quite fast with plenty of detail. But the real problem seems to me to be the lack of playability. It’s as though the games haven’t been really thought through properly. In the case of *Loony Lander*, it is almost impossible to get through the hazards – nice, therefore, to have a demo of the screens – at least you get your money’s worth there.’

COMMENTS

Control keys: 1/2 accelerate up/down, 2/9 hover vertically/horizontally, 8/0 accelerate left/right
Joystick: none

Keyboard play: totally unresponsive, although well laid out – too many keys though,

Use of colour: above average to good

Graphics: smooth, small but effective and varied

Sound: poor

Skill levels: 1

Lives: 5

Screens: 11

General rating: waste of

money in the opinion of two reviewers and below average from the third.

Use of computer	40%
Graphics	48%
Playability	34%
Getting started	56%
Addictive qualities	20%
Value for money	32%
Overall	38%

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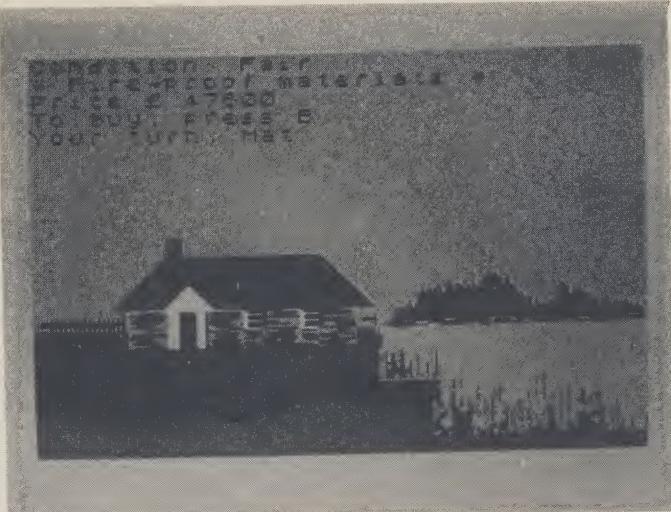
LERM, Dept CR,
 10 BRUNSWICK GDNS, CORBY, NORTHANTS.

COUNTRY COTTAGES

Producer: Sterling Software
 Memory required: 48K
 Retail price: £5.95
 Language:
 Author: Brian James

This is a charming strategy game for two players which brings a whiff of the countryside to your screen. The object is to buy country cottages on a bank overdraft and make money from them by renting them out to a stream of oddball characters.

Each player starts off with an overdraft facility of £100, 000, and each player takes it in turn, with a turn representing a month. The screen display shows your bank balance, value of assets, increase in



assets (as land prices rise) and interest owed to the bank. It also shows what properties (if any) the players own, what tenants are in and what they are paying in rent.

With each turn a player may opt to have a look at offered properties, advertise for a tenant, raise the rent or sell an empty property. Opting to look at something, the screen cuts to a rapidly drawn graphic of the cottage in question. There are several types in a wide price range. If the player

can afford it, it goes to auction and there is a scramble between the players to secure it, with the steps going up in £200 between bids. Once a cottage is owned, it may be advertised, with the rent wanted being input. If the asking price is not too steep a tenant may arrive, usually with some other impedimenta like monkeys or cats. During a turn the rent may be raised or lowered, although putting it up too often or too much may well result in the tenant pushing off in disgust.



WORLD GLOBE

Producer: Eclipse Software
 Memory required: 48K
 Retail price: £7.45
 Language: machine code
 Author: J. M. Weightman

A few issues back we reviewed Space Art by Eclipse

Software, and received a number of enquiries about it. This new program uses hires graphics to draw a 3D image of the world globe as seen from outer space.

Rotation may be in any direction east/west or north/south using the cursor keys in incremental steps of 1 degree (slow), 15 degrees (Normal) or 45 degrees (Fast). The screen display shows the current latitude and longitude of the centre of the globe which is indicated by a flashing yellow box, the direction and speed of rotation and the starting point.

The program may be used in two ways by going through the Pick option to choose a start point either by latitude and longitude references, or by choosing the features list which then displays four options - Cities, Countries, Islands or Features. These four pages contain 240 locations. Choosing a location will result in the flashing cursor square being placed centrally on the chosen location, such as a country or an island, or on the discharge point of a river. The inlay card contains a printout of the pages with all the locations listed together with their reference points.

CRITICISM

- *World Globe* should make an interesting program in connection with school geography work. The hires drawings are of necessity a little on the crude side, but they do reflect the shapes of the countries well, and show the 3D foreshortening effect as continents disappear over the planet's rim quite well. Each rotational scan is redrawn, which lends a flickery aspect to it, and it would have been much nicer to have a continuous, smooth animation, but probably too expensive on memory with all the continuous line calculations being done.
- *The nicest thing about Country Cottages is the graphics of the stately residences themselves. From mean, broken down hovels to four-window lakeside bungalows, they are all neatly and colourfully drawn. The random elements which make up the names and characters of the tenants who come to view*

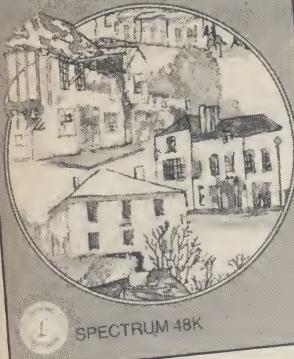
If a property is sold, the player receives its original asking price plus the appreciation factor per month of ownership.

After a year's play, if a player's bank balance is satisfactory, the bank manager may increase the overdraft facility to £200, 000 and so on. The winner is the first player whose total assets first reach the pre-set target figure for a short or long game.

CRITICISM

- 'It seems quite a while since we have had one of these property buying/selling strategy games in to review. Instructions seemed to make the game quite complex, and involving to play, something which I like. Initially the game was playable, and choosing beautiful cottages seemed to be quite a task within a £100, 000 budget, given by my kind bank manager (mean, isn't he)? With my £100, 000 I was able to buy two country cottages in reasonable condition. My next task was to find tenants to occupy them - couldn't be easier, put an advert up in the local paper and suddenly two tenants came forward. What do I do now? Well, nothing really, just slowly increase the rent, and wait - yawn, boring. Ah! My kind manager has now given me £200, 000! Instantly I sprang back to life from the darkest depths of sleep and bought two more cottages, found tenants, sat and waited. Is life really so easy and uncomplicated in the buying, renting and selling market as this game portrays? I've heard about making games uncomplicated and easy to play, but Sterling Software have seemingly gone over the top and totally spoiled the playability of this one. I don't really think there's enough to keep anybody interested for any amount of time, and besides, being a two player game is already a major drawback. Lack of achievement and encouragement really does stop me from telling people to go out and buy this game.'

COUNTRY COTTAGES



them are also at work on the cottages, because although the price always matches the condition and appearance, the fine print often gives rise to mild hysteria and the feeling that an accomplished estate agent wrote it. Who, after all, would put burglar proof locks on a cottage so run down the burglar could climb through the holes in the walls? In fact the humour and the graphics are about it, because otherwise Country Cottages is rather limited in content and action, even with two players. I get the feeling that there's a much better game to come from Sterling along these lines and using (rare in such games) these lovely graphics.'

COMMENTS

Control keys: 8 keys for input with one for each player at auction time
Joystick: N/A

Keyboard play: input routine uses ENTER or Y and is very fast
Use of colour: very good on the cottages, sensible on the balance sheets

Graphics: excellent, and drawn very quickly

Sound: used usefully

Skill levels: 9, increasing hazards to property
Lives: N/A

Screens: random landscape creation
Special features:

General rating: delightful to watch, but lacking in content.

Use of computer	72%
Graphics	79%
Playability	64%
Getting started	70%
Addictive qualities	38%
Value for money	46%
Overall	62%

Steve Davis Snooker

Producer: C. D. S.

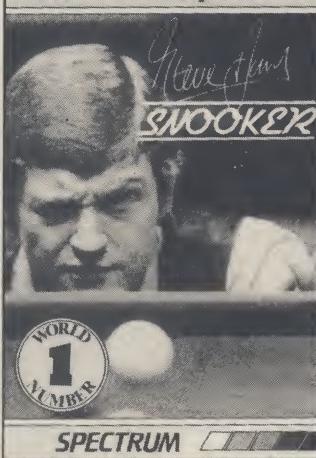
Memory required: 48K

Retail price: £6.95

Language: machine code

Author: Mike Lamb

CDS Micro Systems



On the inlay card C. D. S. say that after the success of their Pool, they have spent considerable time and money in researching and developing the ultimate successor – and this is it – approved by the great man himself. They also add that they genuinely believe that their true to the ball movement is unmatched.

Steve Davis Snooker is certainly a user-friendly program. Setting up shots and executing them has been made as fast and simple as possible, whilst still allowing a great sophistication in shot. The table size on screen is quite large, with the peripheral information kept to a minimum. Above the table, there are points scored, fouls, and table visits. Below you will see a bar code for strength of shot, break score, spin required and colour required. In order of taking a shot, the cursor is moved to the ball at which the cue ball will be aimed. If you have just pocketed a red then nothing will happen until you have selected a colour by its score value. Once the cursor has

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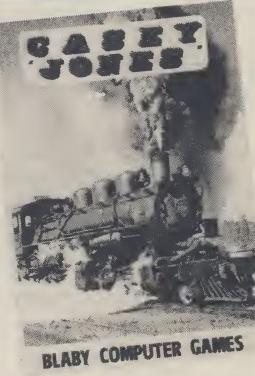
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Reviews

been satisfactorily positioned and entered, the directional keys may be used to select the strength of shot. Once that has been entered, the keys are again used to position a cursor on a large white ball below the screen – the point at which the cue will hit the cue ball and cause any spin. Entering this, also takes the shot.

The game is accessed via a large menu which allows for one or two-player games, long or short game, cursor sound on or off, Currah Speech on or off. Normal snooker rules apply, with the colours being potted in correct order after removing the last red from the table.

CRITICISM

- 'Steve Davis Snooker is, as far as features go, probably the best snooker game about. It's also very playable with speed and spin easily controlled. My only criticism is that the coloured balls do not stand out too well. Overall, an excellent adaption of the popular game, and a worthy sequel to the C. D. S. Pool.'

- 'Where does Steve Davis come into this game? Did he program it? I must say that the game seems to be very realistic in the way that balls react. Some quite tricky shots can be played, only because it is realistic. The balls are of a nice size, so that there isn't too much confusion; they also move proportionately fast. Positioning of the cursor is easy and quick, often a let down in these type of games. Is it fun, you may ask? Well it will be if you're into snooker. Saying this though, I found the game enjoyable to play and I don't like snooker at all. If you want a snooker game, then I can recommend this version – a well planned game.'

- 'Pool from C. D. S. was, in my opinion, the best version

made for the Spectrum. Steve Davis Snooker is a great follow up and the very best snooker simulation you can get. The inlay card's little boast is well justified. Hard work has gone into refining the process of setting up shots and the result is a joy to use. They have repeated the 'air raid' siren sound with cursor movement that was used on *Pool*, which is useful if a bit alarming (!), but it can be turned off if it gets you down. I also like the fact that the cursor doesn't move around the edge of the table, but all over it, which makes for very accurate positioning. The game plays realistically, and is generally great fun.'

COMMENTS

Control keys: Q/A up/down, O/P left/right and ENTER
Joystick: Kempston, Sinclair 2, AGF, Protek
Keyboard play: very responsive, simple to use
Use of colour: on the whole, very good, but yellow and green balls are a bit dubious
Graphics: excellent ball movement, generally clean and bright
Sound: useful
Skill levels: depends on opponent!
Lives: N/A
Screens: 1
Special features: Currah compatible
General rating: a very good, user-friendly simulation, which (possibly for the first time) really calls on skill

Use of computer	81%
Graphics	73%
Playability	73%
Getting started	80%
Addictive qualities	73%
Value for money	80%
Overall	77%

MAGIC ROUNDABOUT

Producer: C. R. L.

Memory required: 48K

Retail price: £5.95

Language: machine code

There was a time when Serge Danot's 'Magic Roundabout' was almost compulsory viewing on BBC in the late afternoon. The simple stories told in that quiet, matter of fact voice just worked. With computer game versions of telly series all the rage at the moment, it comes as no surprise to see *Magic Roundabout* appearing. The title screen contains all the well known figures from the series like Brian the snail, Mr. McHenry, Basil, Florence,

Zebedee and of course the hero of the piece, Dougal. The object is to guide Dougal in his task of building a house of sugar cubes before it's time for bed. The sugar cubes dot the landscape, but the house must be built by pushing the cubes to the magic toadstool! Sugar also forms his diet (dentists take note!), and to keep his energy from falling too low, he must continually top it up with a lump.

The screen only shows a small part of the total playing area,



and scrolls to keep Dougal in the middle. Apart from sugar lumps, there are the familiar red trees, and of course Dougal's other friends from the enchanted garden. If he bumps into any of his friends, however, he loses a life, and after three, it's time for bed.

Zebedee are in the category of nasties)! The game is simple in layout, the graphics are nothing special, but young Roundabout fans will like them. *Magic Roundabout* should be in the 11s and under category.

CRITICISM

- 'This is a simple collect and avoid tha nasties game (yes, Florence, Brian and even old

- 'How long was it since I'd last seen these characters I asked myself? It's nice to hear about them again. The task is fairly simple in this game – just build a house from sugar lumps at the toadstool.'

Sounds easy enough, doesn't it? Well I searched and searched and could I find the toadstool before (and very quickly) all three lives had gone? All graphics are large and colourful, with the characteristic red trees planted around, and all the great names like Brian, Dylan, Ermintrude, Zebedee and Florence, who float effortlessly around the screen. Sound - well the Magic Roundabout theme is there, although a little broken up. Quite a child's game. I enjoyed it, but still only an average game.'

- The graphics are nice enough, but the game fails to recall the real atmosphere of the TV series. *Magic Roundabout* is obviously intended to appeal to children, and no doubt it will, although I think there isn't enough playability in the game. Children who use computers are remarkably sophisticated in their needs when it comes to interactive games. I also found the inlay instructions misleading, because I failed to find a toadstool or a train any-

where - a child might give up more quickly.'

COMMENTS

Control keys: A/Z up/down, N/M left/right, SPACE bark/eat sugar

Joystick: Kempston, AGF, Protek

Keyboard play: responsive, well laid out, but positioning Dougal can be fussy

Use of colour: reasonable

Graphics: average, but characteristic of the original

Sound: very little, poor attempt at tune

Skill levels: 1

Lives: 3

Screens: scrolling

General rating: may prove popular with young children, lacks content for older people.

Use of computer 58%

Graphics 57%

Playability 52%

Getting started 54%

Addictive qualities 38%

Value for money 45%

Overall 51%



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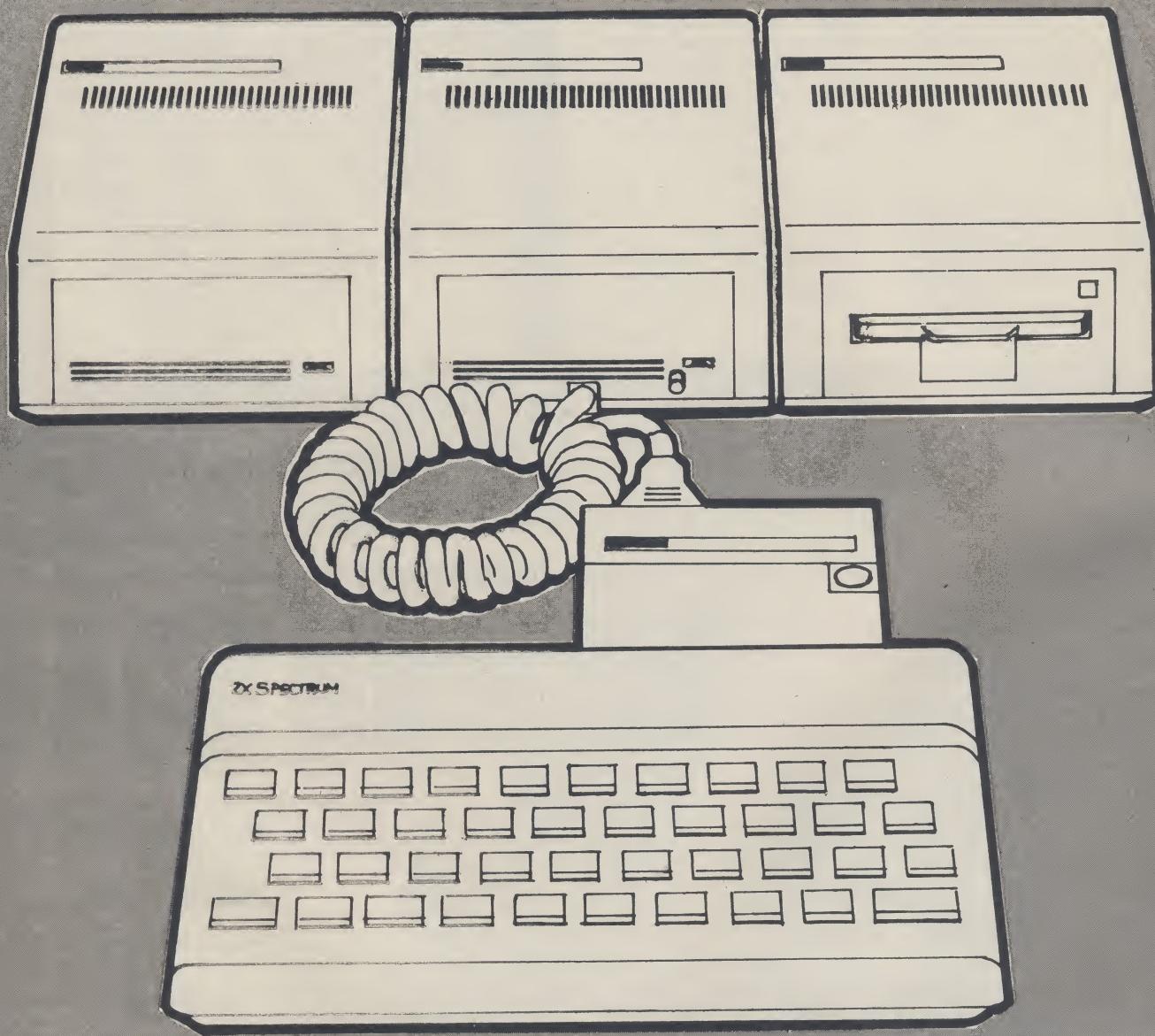
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power supply provides +5V and +12V and will drive the interface, the controller and up to two drives. The recommended retail price is £225 + VAT, but **Micromatic** is making a special offer of £199 + VAT for orders received until 30th December 1984. The unit will be distributed by most of the larger chain stores in the near future. **Micromatic** can be contacted at 84 Talbot Road, London N6 4RA, Tel: 01-340 0310.

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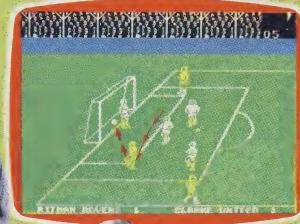
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